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A QUANTITATIVE STUDY ON THE INFLUENCE OF PERSISTENCE FACTORS ON
AMERICAN INDIAN GRADUATE STUDENTS

By

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Dissertation

presented in partial fulfillment of the requirements
for the degree of

Doctor of Education
in Educational Leadership, Higher Education Administration

The University of Montana
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Abstract

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Educational Leadership

A Quantitative Study on the Influence of Persistence Factors on American Indian Graduate Students

Chairperson: Dr. Frances L. O'Reilly

The underrepresentation of American Indian students continues to exist at the undergraduate and graduate levels of postsecondary education despite increases of American Indian student enrollment. The purpose of this quantitative survey study was to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students. The analyses of the data included survey results, descriptive statistics, bivariate correlation, and multivariate regression. A sample of n=63 American Indian Graduate students represented 41 tribes and villages with over 32 unique tribal languages. The respondents indicated a challenge to balance graduate school, family and cultural responsibilities, however most felt a personal responsibility to complete their graduate degrees for their communities.

Although academic factors, American Indian programs, and self-awareness are not significant predictors of American Indian Graduate student persistence, the relationship between the independent variables and the dependent variable were statistically significant. Implications for academic institutions include strategic planning with American Indian representation throughout the entire process.

Recommendations for future research include further development of measurable concepts of indigenous theories and recognition of dual conclusions for American Indian and non-American Indian researchers.

Keywords: American Indian, Native American, Indigenous, education, higher education, degree completion, persistence, post-secondary, graduate degree, graduate school, masters, professional, doctorate, culture.

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Chapter One

This chapter introduces the proposed study on how persistence factors affect American Indian graduate students. The statement of the problem will outline the issue to be addressed and the need for this study, followed by the purpose of the study. Next, the research question is presented along with key definitions. The delimitations and the limitations of the study are then outlined, and the chapter concludes with the significance of the study and the summary.

Statement of the Problem

The number of American Indian students enrolled in higher education has increased consistently since the 1950s. The enrollment numbers for American Indian students in postsecondary education includes students enrolled in undergraduate, graduate, and professional programs. Despite these increasing trends, American Indian students remain the highest underrepresented minority in postsecondary institutions, representing less than 1% of enrolled students (U.S. Department of Education, National Center for Education Statistics [NCES], 2013). American Indian students have historically been and continue to be an underrepresented minority in mainstream higher education institutions across the United States (NCES, 2013).

The underrepresentation of American Indian students exists not only at the undergraduate level but also at the graduate level. The number of American Indians enrolled in graduate programs is significantly lower. Less than 0.5% of all students enrolled in graduate programs—master's and doctoral—across the United States identify as American Indian (NCES, 2013). The underrepresentation of American Indian student enrollment naturally contributes to the underrepresentation of those earning degrees, most notably at the graduate level (NCES, 2013).

The National Center for Educational Statistics started tracking graduate degree confirmation data in 1976; in 1980, these data were reported by decade including the most recent

collection period in 2010. In the past fifty years, less than one percent of conferred graduate degrees in the United States—master’s, doctoral, or professional degrees—have been awarded to American Indians. Even more astonishing is the number of awarded doctoral degrees; American Indians hold only 0.6% of all conferred doctoral degrees since the 1950s (NCES, 2013). Table 1 compares the data of conferred graduate degrees for American Indians versus the general U.S. population since 1980, every 10 years.

Table 1 American Indian Graduate Degrees Conferred since 1980

<i>Date</i>	<i>Master’s degrees</i>			<i>Doctoral degrees</i>			<i>Total graduate degrees</i>		
	AI	US	%	AI	US	%	AI	US	%
1980	*	*	*	312	97,281	0.32%	1,356	398,362	0.34%
1990	1,189	342,863	0.35%	356	105,547	0.34%	1,545	448,410	0.34%
2000	2,496	473,502	0.53%	705	119,585	0.59%	3,201	593,087	0.54%
2010	3,948	730,635	0.54%	947	163,765	0.58%	4,895	894,400	0.55%

Note: AI-American Indian, US-United States, %-percentage of American Indians with conferred graduate degrees compared to the overall total of conferred graduate degrees in the United States.

Table 1 displays the number of master’s, doctoral, and overall graduate degrees conferred to American Indian students in the United States has more than doubled since 1980. When the total of American Indian conferred graduate degrees is compared with the number of conferred degrees in the general U.S. population, however, the results have been consistently below 0.6% since 1976 (NCES, 2013; Shotton, Lowe, & Waterman, 2013). Despite the increase in degrees conferred, the underrepresentation is present even today.

Purpose of the Study

The purpose of this quantitative survey study was to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students. The

underrepresentation of American Indian students continues to exist at the undergraduate and graduate levels of postsecondary education despite increases of American Indian student enrollment. This study sampled American Indian students enrolled in graduate programs to identify relationships between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students.

Research Question

The following empirically based research questions were addressed to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students:

1. What factors contribute to American Indian graduate student persistence?
 - a. Do academic success factors relate to American Indian graduate student persistence?
 - b. Do American Indian academic programs relate to American Indian graduate student persistence?
 - c. Do student self-perceptions relate to American Indian graduate student persistence?

These research questions were investigated through the testing of hypotheses postulated for each factor individually as well as the combined factors. Each hypothesis tested to what degree these factors influence American Indian graduate student persistence. Once the results were determined for each quantitative question (1 a, b, and c), the main research question was tested to

determine the total effects on persistence of American Indian graduate students.

Definition of Terms

The following terms were used throughout this study, as defined below.

American Indian. A person who has a degree of blood from a federally recognized tribe or village and is recognized as such by and/or from the United States (U.S. Department of the Interior, Bureau of Indian Affairs [BIA], n.d.).

Cultural protective factors. These factors contribute to the resilience of American Indian students: spirituality, family strength, elders, ceremonial rituals, oral traditions, tribal identity, and support networks (HeavyRunner & Marshall, 2003: p. 15).

Graduate student. A student who has earned a bachelor's degree, is currently enrolled in a graduate program, and is taking courses toward an advanced degree such as a master's, doctoral, or professional degree (Graduate Student, 2017).

Persistence. The continued mobility of students to the next level in their education, such as progressing through the levels in basic skills or staying enrolled in college from term to term or year to year (Seppanen, 2007).

Persistence factors. Factors known to influence the academic performance of American Indian students and contribute to degree completion, including individual awareness, culture, family, support systems, and community (HeavyRunner-PrettyPaint, 2009; Kicking Woman, 2011; Shotton et al., 2013).

Resilience. The natural, human capacity to navigate life well. It is something every human being has—wisdom, common sense. It means coming to know how you think, who you are spiritually, where you come from, and where you are going (HeavyRunner & Marshall, 2003: p. 15).

Success factors. The influential factors known to help American Indian students succeed in academia, including family support, structured support systems, supportive faculty and staff, self-efficacy, connection to culture, and connections to home (Shotton et al., 2013).

Delimitations

This study focused on factors that affect American Indian graduate students' persistence. Delimitations narrow the scope of the study to focus on a specified population/sample, setting, and instrumentation. The population for this study consisted of American Indian graduate students from which the sample was selected and did not include Alaska Natives. Often, American Indians and Alaska Natives are combined into the same category in research investigations. However, the terms refer to two distinctive geographic groups; Alaska Natives reside in Alaska, whereas American Indians live in the lower 48 states. The languages, worldview, philosophies, customs, regional context, communities, and other characteristics are unique to the Alaska Natives and where they live. Therefore, the researcher chose to focus on American Indians for this study. This study is delimited to American Indian graduate students in the lower 48 United States.

Limitations

As with any research, this study had limitations, which include the sampling strategy, instrument, and lack of generalization. The sample in this study was limited to self-identified American Indian graduate students. Self-identification lends itself to a robust definition of American Indian due to individuals determining this for themselves. The U.S. Department of the Interior, Bureau of Indian Affairs defines American Indian as a person who has a degree of blood from a federally recognized tribe or village (n.d.). The study used this definition to define

American Indians along with an additional question inquiring about identifying as American Indian by the respondents.

A survey instrument on measuring persistence factors of American Indian students was identified and used for this study (Secatero, 2009). This instrument was adapted, and was used to inform the development of an instrument for this study. The instrument(s) contained questions on the known persistence factors of American Indian students, unique factors different from those of mainstream students. The limitation was the reliability of the instrument(s) used in the study and is further addressed in Chapter 3.

The analysis took into consideration the contextual data that speaks to the uniqueness of American Indian students. In addition, in this type of quantitative study, outcomes are limited to correlational results and not causation. The results determined the relationships, the strengths of the relationships, and how much these persistence factors influence American Indian graduate students.

Significance of the Study

A study to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students, is important for several reasons. These reasons include furthering the understanding of persistence factors (individual awareness, culture, family, support systems, and community (HeavyRunner-PrettyPaint, 2009)) and how they influence American Indian students, developing an instrument to assess persistence factors with American Indian students, conducting a study on an American Indian sample of students, and gaining further insight to the experience of American Indian students, especially at the graduate level.

In addition to the reasons stated above, the importance of this study reaches into the exploration of validating the known protective factors for American Indian students, giving this study evidence based conclusions. These conclusions directly feed into the continuation of undergraduate American Indian students into graduate school and mainstream institutions having the capacity to support these students to complete graduate degrees. The next step in the pipeline is graduate education. Gaining insight into what factors contribute to American Indian persistence assists the support structure in academic institutions' target strategies for American Indian students.

Another implication for the proposed results of this study is the impact at the administrative and policy level of postsecondary education. If proven factors are identified to benefit American Indian graduate students, the justification for the infrastructure and financial commitment from these institutions can be made in confirming these known methods and putting them into action. The support system for American Indian graduate students targets the identified protective factors discussed in Chapter 2 and develops strategies around these factors to encourage students in completing graduate degrees.

Another significance of this study is the implications for two audiences: American Indian researchers and non-American Indian researchers. The results of this study will have research conclusions however the findings will be applied differently between the two audiences. This study extends the literature and research on American Indian persistence by building on the previous studies, specifically Secatero's study of American Indian graduate students, by examining persistence factors of American Indian graduate students through statistical analysis. The results of this study are not to generalize conclusions about American Indian graduate

students but to expand the knowledge on the persistence of American Indian graduate students and the unique experience in graduate school of American Indian students.

Summary

This chapter introduced the study on the influence of persistence factors on American Indian graduate students. The statement of the problem outlined the issue to be addressed and the need for this study, followed by the purpose of the study. Next, the research questions were presented along with key definitions. The delimitations and the limitations of the study were described, and the chapter concluded with the significance of the study and the summary.

Chapter Two: Review of the Related Literature

This chapter introduces the following sections of related literature to further explore the historical contexts of the current state of American Indian student success in higher education. First, a brief history of higher education is discussed. Next, the history of American Indian education is reviewed followed by tribal colleges and universities. Attendance of American Indians in mainstream colleges and universities is also reviewed, followed by an overview of resilience and barriers in higher education for American Indian students. Additionally, persistence is explored along with influential factors. Degree completion is reviewed for both American Indian master's students and doctoral students. A synthesis of the literature is provided to guide the hypothesis for this study concerning persistence factors and degree completion. A summary concludes the chapter.

History of Higher Education

In the early 1600s, the first institutions of higher education were founded in America's thirteen original colonies. These three founding institutions were created for the sole purpose of forwarding religion. When the pilgrims came to what is now America, it was with the goal of breaking free from the British Parliament and creating a new world (Rudolph, 1990). These collegiate institutions prepared men to enter the ministry as priests (Altbach, Berdahl, & Gumport, 1999).

At the end of the 17th century, a divide began to occur in universities in America by offering not only studies for the piety but also in mathematics and philosophy (Altbach et al., 1999; Pulliam & Van Patten, 2007). In addition to this divide, universities were starting to become more accepting of many religions. This openness created the avenue for both the elite

and the poor. Both gentlemen and farmers were attending college, with most still joining the ministry afterward.

The latter part of the 18th century disrupted college life in America as the War for Independence continued until the unification under the Constitution of the United States in 1788. The founding of the United States triggered a new era in higher education that focused on republican education, including law and a new openness to enlightenment (Altbach et al., 1999). This shift changed the face of higher education because college enrollment for political agendas exceeded that of religious pursuits. This significant change caused fluctuation in enrollment numbers along with minimal number of faculty that resulted in chaos, notably Jefferson Republicanism found at the College of William and Mary (Altbach et al., 1999; Rudolph, 1990). When Thomas Jefferson was elected president, a major upset occurred at colleges. By the early 1800s, republican education had been laid to rest in America (Rudolph, 1990).

A standardizing of college education occurred in the first few decades of the 1800s. Student riots broke out, which suggested a need to return to the traditions of college education and reintroduce the traditional languages of Latin and Greek (Altbach et al., 1999; Rudolph, 1990). Science and professional subjects fell short due to lack of interest by both faculty and students. This standardizing facilitated the drifting apart of professional schools and universities and the creation of professional schools along with mercenary schools (Altbach et al., 1999; Pulliam & Van Patten, 2007).

The next era of higher education in America signaled the rise of the denominational colleges (1820s–1850s). Classical colleges received criticism during this time because of the popular belief that they laid the foundation for a superior education. This type of education was geared toward “gentlemen” and the professional class. The denominational colleges focused on

laborers working in the American economy (Altbach et al., 1999). The new colleges in America were responsible for well over half of all the colleges and the enrolled students during this time (Altbach et al., 1999; Rudolph, 1990).

The Morrill Land Grant Act of 1862 and the broadening of institutions of higher education for women and African Americans marked some of the significant events in the next few decades (Altbach et al., 1999; Pulliam & Van Patten, 2007; Rudolph, 1990). The combining of the classical curriculum with that of the sciences created a multifunctional institution (Altbach et al., 1999). The aim to create an American university, which included the purpose of graduate education and research, became the focus of many of the institutions arising across the country (Altbach et al., 1999). This precipitated the enrollment explosion that took place in the last decade of the 19th century onward.

In the beginning of the 19th century, enrollment at some colleges in America doubled or tripled. The assimilation of women into higher education contributed to this increase in enrollment (Altbach et al., 1999; Rudolph, 1990). More and more institutions across the country allowed women to enroll (Rudolph, 1990). Additionally, many colleges adopted the model of two years of general education and one or two years of advanced or specialized courses. The introduction of the bachelor's degree, along with graduate education and the Ph.D., was now common across the states (Altbach et al., 1999). Laurence Veysey (1965) capitalized on this standardization of higher education in America in his famous study about the effect of degree offerings on enrollment, which is the face of American higher institutions today.

In the 1920s, college education enrollment shifted from the elite to the masses (Altbach et al., 1999; Rudolph, 1990). Junior colleges, teachers colleges, and service-oriented colleges sprang up across the country to meet the needs of America's laborers. A hierarchy of institutions

divided the higher education sector by way of three criteria: (a) collegiate ideal, (b) quality of undergraduate learning, and (c) advancing knowledge (Altbach et al., 1999; Rudolph, 1990). Many Ivy League schools employed discriminatory procedures (Altbach et al., 1999; Rudolph, 1990). The monetary aspect of higher education was fully exposed in endowments, hiring of better faculty, selective admissions, and research for the advancement of knowledge (Altbach et al., 1999; Rudolph, 1990).

In the mid-twentieth century, public community colleges emerged, partially as a response to the masses of returning soldiers taking advantage of GI Bills (Rudolph, 1990; Tierney & Wright, 1991). This post-war era was earmarked by the shift in national priority from war to that of defense (Pulliam & Van Patten, 2007). The federal government used money to support research and education by building labs and institutions to house these efforts, which came from NSF, NASA, and NIH for example (Tierney & Wright, 1991). However, the Vietnam War and subsequent student rebellions derailed this trajectory (Altbach et al., 1999; Pulliam & Van Patten, 2007).

In the last few decades of the 20th century, a few significant events took place. The Higher Education Act (1965) was amended in 1972 for two initiatives: to provide students aid based on financial need, and governmental regulatory control over higher education and Title IX (Altbach et al., 1999). During this same time, the support for research was significantly reduced and became a competitive endeavor by private funding (Altbach et al., 1999).

Since 2000, other progressives have rose in higher education in the United States. Mainstream institutions are shifting the focus of education to more business like endeavors with rising costs of tuition and student awareness of educational debt (Newman, Couturier, & Scurry, 2004; Howe & Strauss, 2000). These issues facing academic institutions provide new challenges

for administrators to creatively troubleshoot decreasing enrollment, funding sources, and the ability to support the current work force (Newman, Couturier, & Scurry, 2004; Howe & Strauss, 2000). In addition to these significant challenges the institutions face today, considerations are needed for an aging work force with a robust retirement wave of the baby boomers, multi-generational classrooms, the advancements in access to information through the internet, and the impacts of social media (Newman, Couturier, & Scurry, 2004; Howe & Strauss, 2000).

History of American Indian Education

The beginning of education for Indians in the United States differed vastly from that of the American colleges and universities. Whereas most colleges and universities of the time dedicated their instruction to the education of men, institutions built for Indians existed to completely eradicate anything connected to Indians: culture, language, ceremonies, subsistence, and land. Housed in abandoned military and prison facilities, Indian educational institutions stood in stark contrast to the pre-established colleges and universities (Reyhner & Eder, 2004). The U.S. Congress passed the Indian Civilization Act in 1819 (Keohane, 1999; Reyhner & Eder, 2004). This act provided incentive for individuals and religious sects to live among the Indians and educate them. To support these efforts, the government appropriated \$10,000 per year to establishments dedicated to Indian education, causing a boom of missionary schools across the country (Reyhner & Eder, 2004).

This government-initiated effort became the easiest mechanism of eradicating the Indians in the United States (Keohane, 1999). These schools marked the beginning of a mass assimilation of Indian children to ultimately become civilized citizens alongside their white counterparts (Keohane, 1999; Reyhner & Eder, 2004). To guarantee success in educational

programs designed for “killing the Indian” (Pratt, 1892), the United States government targeted the most vulnerable part of the Indian population: children (Adams, 1995).

The same churches and missionaries incentivized by the Indian Civilization Act of 1819 opened “day schools” on reservations. The Indian children attended school during the day and then returned to their villages in the evening to be with their families (Keohane, 1999; Reyhner & Eder, 2004). The reservation agent held overall authority of the day schools and hired all employees (Keohane, 1999; Reyhner & Eder, 2004; Juneau, 2001). Attendance at the day schools was mandatory for the Indian children from the age of six through 16.

The strict rules at the day schools upheld the missionary goal to completely erase the children’s Indian heritage (Juneau, 2001). Children were forbidden to speak any language other than English; English language was viewed as the superior language suitable for all races (Keohane, 1999). Though this restriction was in place, the day schools were deemed as not enough to achieve the indoctrination of Indian children into white society (Keohane, 1999).

The first boarding school in the United States was founded in 1879 in Fort Marion, Florida (Juneau, 2001). Eventually, many of the students were transferred to another early boarding school known as the Carlisle Indian Industrial School, founded in 1886, in Carlisle, Pennsylvania (Juneau, 2001; Shotten et. al., 2013). . The boarding schools provided half-day academics and half-day vocations all taught in English. The “students” at these first boarding schools were Indian prisoners serving terms and being forced into assimilation education (Keohane, 1999; Reyhner & Eder, 2004; Juneau, 2001).

When the Indian prisoners arrived at the school, many measures were taken to remove any connection to their culture. Indian children were stripped of their traditional clothing and issued standard uniforms (Adams, 1995). The names of the children were changed to

pronounceable English names as a step taken to remove their prior Indian identity (Keohane, 1999). One of the most controversial identity removing mechanisms consisted of cutting the Indian children's hair (Adams, 1995; Keohane, 1999, Juneau, 2001). Some of the students resisted; others conformed out of belief that it was either this or extinction (Juneau, 2001).

The staff believed that anything with order was better than the ways of the Indians (Keohane, 1999). Popular belief included structure, discipline, and uniform clothing were characteristic of the reservation school systems, established to make one culture disappear into another (Keohane, 1999). Local farmers also became involved in the education process by bringing Indian children to their homes to help with the duties during the summer months (Keohane, 1999). Not only did the Indian students work at these homes, the homes also served as educational platforms for teaching the importance of Christianity and Sunday school (Juneau, 2001).

From the onset, education provided by the government for Indians aimed to exterminate Indian identity (Adams, 1995; Keohane, 1999, Juneau, 2001). The tenure through these early educational institutions continuously exposed Indians to perceived inferiority to whites (Keohane, 1999). Many commencement ceremonies were concluded by remarks like those of Reverence A. J. Lippincott (Adams, 1995, p. 274): "the Indian is DEAD in you. Let all that is Indian within you die! You cannot become truly American citizens, industrious, intelligent, cultured, civilized until the INDIAN with in you is DEAD". Surviving through these systems did not end the reaffirmation of the government to eradicate the Indian.

In the 1920s, Indian education came under government scrutiny due to the continued poverty on Indian reservations across the United States (Adams, 1995; Keohane, 1999, Juneau, 2001). The goal of the boarding schools and other institutions charged with educating the

Indians was twofold: assimilating the Indians, and teaching them a vocational trade (Juneau, 2001). The Indian children performing the labor for the schools did not enforce these goals, which resulted in the vocational activities being self-serving.

The Johns Hopkins Press published the Merriam Report by the Brookings Institution in 1928 about the status of Indian education (Institute for Government Research Studies Administration, 1928). The report called for progressive education to be more child-centered and culturally appropriate. In addition to education, the report discussed information on economy, health, governance, poverty, and the continued desolate conditions on most of the reservations in the United States (Reyhner & Eder, 2004). The Merriam Report acted as a precursor for the Indian Reorganization Act (1934) with many of the report's recommendations incorporated into the new policies. The act introduced provisions for land allotments, funds for tribal loans, and the adoption of a governmental structure for tribes (Juneau, 2001; Reyhner & Eder, 2004). Although the act aimed to increase tribal self-government, many of the provisions continued past assimilation ideals (Reyhner & Eder, 2004). These underlying assimilationist purposes ultimately undermined progressive components of the Indian Reorganization Act (Juneau, 2001; Reyhner & Eder, 2004).

The Merriam Report and the Indian Reorganization Act both influenced the introduction of the Johnson-O'Malley Act of 1934 (Reyhner & Eder, 2004). This act allowed the initiation of contracts between the Secretary of Interior and states for the "education, medical attention, agricultural assistance, and social welfare, including relief of distress, of Indians in such state or territory" (Cajune, 2011, p. 10). The introduction of the act caused hundreds of Indian children to be transferred into public schools. Public schools benefitted by receiving further funding for the attendance of Indian children (Juneau, 2001). Despite this "education" of Indians, the

schools did not make changes to meet the needs of the Indian students and reproduced past efforts to assimilate Indian children (Juneau, 2001).

The termination period of federal Indian policy refers to the years between 1953 and through 1975 (Cajune, 2011). The government introduced policy to terminate reservations and tribes, which ultimately intended to break all ties and responsibilities of the federal government with Indian people (Reyhner & Eder, 2004). This included trust land, federal recognition, and government provided services. Policies of the termination era assumed that if no more reservations existed, the Indians would leave and relocate themselves to cities (Cajune, 2011; Reyhner & Eder, 2004). This relocation process would then further education aimed at assimilating Indians into American society (Cajune, 2011).

Heavy opposition to the termination policies was felt across Indian Country. Out of this came the Indian Self-Determination and Education Assistance Act of 1975, which corresponded with the official end of the termination period, and the Tribally Controlled Community College Assistance Act of 1978 (Reyhner & Eder, 2004). Both acts influenced policy derived from this period to recognize the unique government-to-government relationships tribes had with the federal government.

This legislation recognized the uniqueness of American Indians and their culture was a necessary piece of education (Bill, 1990; Cajune, 2011). The experience of American Indians in education would improve with the recognition in schools of their culture and identity. The enrollment numbers increased in these schools (Cajune, 2011). Tribes now had recognition to determine themselves and receive education about themselves in public schools on reservations and extending through higher education in tribally controlled community colleges.

Tribal colleges and universities. Higher education in America has historically been a part of this country almost since Columbus's discovery (HeavyRunner-PrettyPaint, 2009). Europeans who migrated to escape the bounds of their home countries of church and state brought the model to these lands (Juneau, 2001). Higher education was traditionally for the elite and was a privileged institution that only aspiring leaders, specifically white males, had access to (Rudolph, 1990).

Though the migratory nature of the new American inhabitants was viewed as superior over other "savage" peoples, an intelligent community already existed within the land boundaries of the continent. (Rudolph, 1990). Learning and knowledge was not reserved for the elite (Rudolph, 1990) but was a gift from the creator (Deloria & Wildcat, 2001). Today, this natural classroom has become housed within the walls of the European model of higher education institutions. Tribal colleges and universities are minority-serving institutions with specific goals of opportunity and cultural preservation (AIHEC, 1999).

History of tribal colleges and universities. Tribal colleges and universities in the United States began to appear in 1968 (Yellowman & Chenault, 1999). The southern United States was home to the Dine', "the people," or the Navajo (Cajune, 2011). The Navajo Nation, which spans across Arizona, New Mexico, and Utah, established the first tribal college in the United States (Juneau, 2001). This first tribally controlled institution, the Navajo Community College, was "by Native Americans, for Native Americans" (Cajune, 2011). While construction was being completed in the new location of Tsaile, Arizona, the Navajo Community College was housed in the Rough Rock Community School. The Navajo Community College took residence in the new construction site in 1969 (Cajune, 2011; Kicking Woman, 2011).

Funding the Navajo Community College cost about four million dollars per year (Cajune, 2011). With new leadership, by 2000 the Bureau of Indian Affairs almost doubled the funding to 7.3 million dollars per year (Cajune, 2011). The 1994 Equity in Education legislation of the U.S. Congress allowed for the tribal college to become a Land Grant Institution. During the summer of 1997, the administration changed the school's name from Navajo Community College to Diné College to reflect their name for themselves, meaning The People (AIHEC, 2012). In 1998, Diné College bestowed its first baccalaureate degrees under the Diné Teacher Education Program, accredited under a partnership with Arizona State University (Cajune, 2011).

In 1972, a new organization was formed called the American Indian Higher Education Consortium (AIHEC, 2012). Its founding members consisted of the six presidents of the first tribal colleges and universities in the United States (AIHEC, 2012). The AIHEC group nurtured a vision common to tribal colleges through the development of becoming a national movement, hence, the tribal college and university movement (AIHEC, 2012). Through volunteerism from college presidents, students, community members, and other tribal leaders, this movement progressed through research, advocacy, and lobbying. In the United States, 37 tribal colleges and universities exist, as well as one sister institution in Canada (Red Crow Community College) resulting from these efforts (AIHEC, 2012).

The majority of tribal colleges and universities are located on or near Indian reservations (AIHEC, 2012). They provide access to higher education, degrees, and vocational training for all students, both Indian and non-Indian (AIHEC, 2012). These institutions are controlled and operated under the tribes themselves not only for modern educational advancements but also for cultural preservation. Indian culture and tradition have been a foundational part of the curriculum offered at these institutions since their beginnings (Kicking Woman, 2011).

These institutions face problems similar to those of other rural educational institutions: recruitment and retention of students and faculty, and curriculum issues (Reyhner & Eder, 2004). The additional obstacles the institutions faced were lack of funding, along with minimal resources of some tribes (Cajune, 2011; AIHEC, 2012). For some Native American nations, revenues from casino gambling have aided in building educational institutions.

The Elementary and Secondary Education Reauthorization Act designated tribal colleges and universities as land grant institutions (Cajune, 2011). Across the nation, these institutions offer associate's (two-year) degrees, along with a few that offer bachelor's (four-year) degrees, and two that offer master's degrees (Cajune, 2011). Many of the tribal colleges and universities have successfully created transfer agreements with various four-year institutions (Cajune, 2011; AIHEC, 2012). This act bridged the opportunity for tribal college students to continue the pursuit of higher education degrees.

As a natural progression, the enrollment at tribal colleges and universities has increased (Cajune, 2011; Kicking Woman, 2011). In the early 1980s, approximately two thousand students were enrolled at tribal colleges and universities across the nation (Cajune, 2011). By 2003, this enrollment number had increased to 30,000 students (Cajune, 2011). These institutions are growing considerably, but with the slow growth in areas of funding and infrastructure, some colleges still struggle with low enrollment (AIHEC, 2012).

Montana is one of the richest states in the union in terms of tribal college and university count. Each of the seven reservations in the state houses an accredited institution controlled by the tribe (Juneau, 2001). Approximately 6% of the state's population is Native American (approximately 60,000 residents) and 10% of these people are enrolled in higher education. Within the Montana University System, 78% of the Native American students are enrolled in

courses at tribal colleges and universities within the state. About 60% of these students are considered full-time enrollment.

Mainstream Colleges and Universities

The landscape of higher education has changed over the years in terms of enrollment of American Indians; the number of American Indian students who enroll in higher education has increased. Increases have occurred in vocational schools, community colleges, and mainstream colleges and universities, both public and private. Although tribal colleges and universities have provided an avenue for American Indians to gain easier access to higher education, the enrollment in all types of institutions for American Indians has increased.

The overall population of American Indians in the United States has increased since the 1970s. Estimates from the 1970s calculated the American Indian population around 237,000. Twenty years later, the estimates were nearly 2 million, specifically 1.9 million (NCES, 1998). In the latest census reports, the total American Indian population was approximately 5.4 million (U.S. Census Bureau, 2015). The overall population increase of American Indians has also been reflected in higher education enrollment.

In 1976, the American Indian enrollment in higher education was approximately 76,000. By 1996, American Indian enrollment in higher education had reached over 127,000 American Indians enrolled in higher education, exceeding the initial projections of 120,000 (NCES, 1998). This steady trend continued through four decades, when the counts of American Indians enrolled in postsecondary education more than doubled. Approximately 181,000 American Indians were enrolled in higher education, based on the last estimates in 2008 (NCES, 2008).

The largest increase in enrollment of American Indians in higher education has been at public universities and colleges. In 2008, more than half of American Indians were enrolled at

four-year public institutions (NCES, 2008). This number was a notable change, as the highest enrollment was previously at two-year institutions. In 1976, forty-one thousand American Indians were enrolled in two-year institutions compared to 35,000 enrolled in four-year institutions. In 2006, this difference had shifted to over one hundred thousand American Indians enrolled in four-year institutions compared to 81,000 enrolled in two-year institutions (NCES, 2008).

The enrollment of American Indians has also changed when looking at the differences between men and women. In the 1970s, more American Indian men were enrolled in higher education than American Indian women (NCES, 2008). This trend continued until 1978, when the number of American Indian women enrolled surpassed that of American Indian men. The National Center for Educational Statistics indicates this new trend has continued through the past four decades. In 2006, approximately 111,000 American Indian women were enrolled compared to 71,200 American Indian men (NCES, 2008). The increase in enrollment has largely been due to the doubling of American Indian women entering postsecondary institutions.

The enrollment trend is different when only examining graduate students. The Council of Graduate Schools (Gonzales, Allum, & Sowell, 2013) published a report in 2013 on enrollment in graduate programs and graduate degree completion. The first-time graduate enrollment rates for American Indian/Alaska Natives declined by 20.6% between the fall of 2009 and the fall of 2010. In the same time frame, the total graduate enrollment for American Indians/Alaska Natives fell by 10.3%. This decline was approximately 1.6% annually between 2005 and 2010. These changes in graduate enrollment do not reflect national trends of an overall increase in the number of students pursuing graduate education.

Other demographic information on graduate program enrollment included gender and overall enrollment. The same differences and trends based on American Indian/Alaska Native gender are indicated among graduate students. In 2010, thirty-seven percent of American Indian/Alaska Native graduate students enrolled were men, compared with 63% for women. Despite the continued trends of higher enrollment of American Indian/Alaska Native women compared to men, the overall representation of enrolled graduate students is still at 0.06%.

In this same report, enrollment in graduate programs was explored across major fields of study including Natural Science and Engineering, Social and Behavioral Sciences, Health Sciences, Business, and Education (Gonzales et al., 2013). The American Indian/Alaska Native student trends reflected the national enrollment trends across these disciplines: Natural Science and Engineering at 27%, Social and Behavioral Sciences at 11%, Health Sciences at 12%, Business at 15%, Education at 23%, and all other fields at 27% (Gonzales et al., 2013). Overall, American Indian/Alaska Native students are more likely to enroll in social science, behavioral fields, and education compared to natural sciences and math.

The enrollment decrease was also represented in broad fields of study and the first-time enrollment of American Indian/Alaska Native students. Between 2009 and 2010, the largest drop in enrollment of American Indian/Alaska Native students was in engineering (-37.7%), followed by arts and humanities (-35%), and public administration and services (-27.8%). When considering total enrollment, these decreases are still reflected: other fields (-21.3%), biological and agricultural sciences (-17.5%), and education (-16.2%).

Overall, American Indian/Alaska Native student enrollment trends have reflected the national trends in higher education over the last few decades. The increase in American Indian/Alaska Native student enrollment in two-year and four-year institutions has increased; the

number of American Indian women enrolled, compared to American Indian/Alaska Native men, has increased consistently over the past 40 years; and the number of American Indian/Alaska Native students graduating has increased as well. The only discrepancy is the decrease in American Indian/Alaska Native enrollment in graduate programs in broad fields, especially in the last 10 years.

American Indian Master and Doctoral Graduate Degree Completions

The increases in enrollment have directly impacted the graduation rates for American Indian students. Considerable increases have occurred in those American Indian students earning associate and bachelor degrees following enrollment trends. At the master and doctoral level, increases have occurred, although not as large as those for associate and bachelor degrees (NCES, 2013). A large underrepresentation of American Indian students earning master and doctoral degrees continues to exist.

American Indian master degree completions. In 2013, a total of 751,751 master's degrees were awarded across the United States (U.S. Department of Education, Institute of Education Sciences [IES], 2015). When examining master's degrees awarded by race, the data were reported as follows: White (455,892), Black (87,988), Hispanic (52,990), Asian/Pacific Islander (44,912), and American Indian/Alaska Native (3,697). The number of master's degrees earned by American Indians in 2013 increased by approximately 28% from those earned ten years earlier, which was 2,886 (IES, 2015).

American Indian Doctoral degree completions. The numbers of American Indian students completing doctorates has also increased, following similar trends in earned associate's, bachelor's, and master's degrees. The Institute of Educational Statistics (IES) reported American Indian students earned 900 doctoral degrees in 2013 (2015). This represented a decrease in

degrees earned from the previous year, 2012, of 915. Although a slight decrease occurred, the overall trend indicated an increase from even ten years earlier of 759 Doctorates earned in 2003.

The number of doctoral degrees earned by American Indian students has followed the longitudinal trends across the nation. Doctoral degrees conferred by race are as follows (based on the 2013 data): White (110,775), Black (12,084), Hispanic (10,107), and Asian/Pacific Islander (18,408). The number of doctoral degrees earned by American Indians in this same data set was a total of 900. The overall number of doctoral degrees earned in 2013 was 175,038. The same underrepresentation found at the master's level of degrees earned by American Indian students is also found at the doctorate level, where the degrees earned is less than 1% (IES, 2015).

Barriers

The history of education for American Indian students is riddled with barriers, which have consistently contributed to underrepresentation in enrollment and degree completion (. One notable source of barriers is from the Senate Report in 1969 (S. Rep. 80-1, 1969), which acknowledged that language differences of American Indian students inhibited learning. Since this time, researchers have investigated other barriers of American Indian students at all levels. This section will cover the literature on barriers of American Indians in education. A historical tour will include major barriers, along with secondary barriers for American Indian students.

The Senate Report in 1969 represented a documented introduction into the barriers for American Indian students. This report outlined the most significant barriers as language differences, high absenteeism, and low self-esteem (S. Rep. 80-1, 1969). These three barriers were notably the most significant reasons for departure of American Indian students from education. Language differences (McNamara, 1982) contributed to high absence rates

(Benjamin, Chambers, & Reiterman, 1993); the students were not able to understand what was being taught in the classrooms, which contributed to high absentee numbers. The development of low self-esteem resulted from not being able to understand English and missing a lot of school, which in turn led to American Indian students departing from school (Benjamin, Chambers, & Reiterman, 1993).

The next set of barriers identified for American Indian students consisted of poor educational preparation (Garrod & Larimore, 1997; LaCounte, 1987; Lee, 1997; Minner, 1995; Wetsit, 1999), financial difficulties, lack of clear educational and career goals (Lin, LaCounte, & Eder, 1988), addiction (LaFromboise & Graff Low, 1989), and family responsibilities (Edwards & Edwards, 1984; LaFromboise & Graff Low, 1989). Each of these studies contributed to the understanding of departure for American Indian students.

During the decade between 1990 and 1999, additional barriers in education for American Indian students continued to be identified. The barriers were both internal and external to the student and impacted student departure. The additional barriers included addiction (Sue & Sue, 1990), parental and peer pressure (Sue & Sue, 1990), racism and stereotyping (Ambler, 1997; Bowker, 1993; Sue & Sue, 1990; Angspatt, 2001), psychosocial adjustment problems (Garrod & Larimore, 1997; Pipes, Westby, & Ingelbret, 1993; Sue & Sue, 1990; Teranzini & Pascarella, 1991; Dillman, 2002), and cultural dissonance (Garrod & Larimore, 1997; Jenkins, 1999; Pipes, Westby, & Ingelbret, 1993; Thomason, 1999; Wetsit, 1999; Jackson et al, 2001). Each study furthered the understanding of American Indian student departure and what related factors contributed to this decrease.

The extensive research into educational barriers for American Indian students occurred during the same time that new perspectives into student departure were emerging. A paradigm

shift started to occur in the approach to investigating student departure, and studies began to emerge that focused on what was working for students to continue in academia and not drop out. Studies examined the contributing factors to student persistence. The next section reviews the literature specific to resilience for American Indian students.

Resilience

Resilience has most recently been defined as positive adaptation despite adversity (Luther, 2006; Fleming & Ledogar, 2008). The study to understand resilience began in the field of psychology and psychiatry in the 1990's and has been expanded to other areas of mental health and now, health in general (Fleming & Ledogar, 2008). Resilience has gone through transformations of understanding the concept as well as the terminology used around this phenomenon.

Resiliency was originally conceptualized as an individual characteristic. Many variations on how to define this concept were found throughout the literature and include three general uses: good developmental outcomes despite high-risk status; sustained competence under stress; and recovery from trauma (Werner, 1995; Fleming & Ledoger, 2008). Researchers distinguish resilience from other terms for example competence, hardiness, and thriving (Fleming & Ledoger, 2008). The difference was resilience was most often present with some form of risk (Luther, 2006) and was an innate or "normal" state (Fonagy et. al. 1994).

The terms "resiliency" and "resilience" were used interchangeably in the early research in this area (Fleming & Ledoger, 2008). The further development of research in resilience determined there was a difference in the two terms: resiliency was an individual characteristic where as resilient was a process that occurred under specific circumstances (Fleming & Ledoger,

2008). Resilient is the term associated the most with student persistence and the process they go through to be successful (Fleming & Ledoger, 2008).

The concept of resilience applies to American Indian students and is also explored further in the literature as cultural resilience. This particular type of resilience is directly associated with a student's culture as a resource they may draw upon in times of adversity (Fleming & Ledoger, 2008). Cultural resilience is defined as “community or cultural resilience is the capacity of a distinct community or cultural system to absorb disturbances and reorganize while undergoing change so as to retain key elements of structure and identity that preserve its distinctness (Healy, 2006). The definition alludes to the retaining of one's culture is the specific resource from which the individual can draw upon to persist through stressful situations and still be successful (Fleming & Ledoger, 2008). This is done in a manner Healy (2006) speaks to by preserving one's identity.

Cultural continuity was explored through a study conducted on youth suicide rates and measuring the six facets of self-government; land claims; education; health services; cultural facilities, and police and fire (Chandler & Lalonde, 1998). The results indicated the higher composite score of cultural continuity, the lower the suicide rate (Chandler & Lalonde, 1998). In addition to this, a language component was added to the initial 6 facets that resulted in language as a single indicator being the strongest predictor of resistance to suicide by youth (Hallett et al., 2007). In some communities, the suicide rate dropped to almost zero where over half of the membership had a conversational knowledge of the Native language (Hallett et al., 2007).

Resilience for American Indian students began to take shape under the factors of cultural continuity, language, and cultural protective factors defined by HeavyRunner & Morris (1997). Resilience in this context was “our innate capacity for well-being” and later “the natural human

capacity to navigate life well” (HeavyRunner & Morris, 1997). HeavyRunner further explained, “It means coming to know how you think, who you are spiritually, where you come from, and where you are going. The key is learning how to utilize innate resilience, which is the birthright of every human being. It involves understanding our inner spirit and finding a sense of direction” (HeavyRunner & Marshall, 1997, p. 15). American Indian students have language, spirituality, family, elders, ceremonies, oral traditions, tribal identity, and support networks as resources to help them through challenges and be successful (HeavyRunner & Marshall, 1997).

Resilience for American Indian students is 1) the ability to adapt positively despite adversity (Luther, 2006), 2) good developmental outcomes despite high-risk status; sustained competence under stress; and recovery from trauma (Werner, 1995; Fleming & Ledoger, 2008), and 3) the innate right to draw from their unique cultures and protective factors (language, spirituality, family, elders, ceremonies, oral traditions, tribal identity, and support networks) to navigate academia and life well (HeavyRunner & Marshall, 1997). The literature on resilience provides the foundation for understanding student persistence and how American Indian students are able to be successful and complete collegiate degrees. The next section reviews the literature specific to persistence for American Indian students including a theoretical overview.

Persistence

Over the past 40 years, student persistence has been explored to try and explain why college students make progress to graduation and earn a degree. The origination of the research on persistence began with Tinto’s (1972; 1987; 1993) Theory of Student Departure. This model stated that students come to college with certain background characteristics. These background characteristics, along with the quality of interactions with the institution and social systems, are related to whether a student will persist or drop out. Other research (HeavyRunner-PrettyPaint,

2009; Secatero, 2009; Tierney, 1992) has expanded the exploration into persistence and what contributes to student success and degree completion.

Tinto (1972) developed the model of student departure based on an adaptation of Durkheim's Theory of Suicide (1897). This theory stated student departure was a form of suicide in that students did not adapt to the institutions and the institutions themselves did not provide the necessary foundation for these students to succeed. Tinto (1972) identified many causal factors that contribute to a student deciding to leave college: (a) academic difficulty, (b) adjustment, (c) goals, (d) uncertainty, (e) commitments, (f) finances, (g) integration and community membership, (h) incongruence, and (i) isolation.

Despite the identification of these original student factors, Tinto (1993) defined the Model of Institutional Departure, stating three major sources of student departure: (a) academic difficulties, (b) the inability of individuals to resolve their educational and occupational goals, and (c) their failure to become incorporated in the intellectual and social life of the institution. Student persistence was based on formal and informal integration into academic and social systems. Tinto (1999) continued studying student departure and later identified conditions for student retention, which encouraged persistence. The five conditions included the following factors: (a) environments that expect students to succeed, (b) settings that provide clear and consistent information about institutional requirements and effective advising on program of study and career goals, (c) settings that provide academic, social, and personal support, (d) settings that involve students as valued members of the institution, and (e) settings that foster learning (Tinto, 1999).

Through Tinto's research, recommendations for institutions to foster persistence have emerged and contributed to the exploration of persistence. Some of his more recent studies

include recommendations for learning communities (Tinto, 2006), exploring institutional conditions for student retention (Tinto, 2010), and strategies to assess student retention programs (Tinto, 2006). Areas of further research include institutional action, program implementation, and promotion of success of low-income students (Tinto, 2006). Despite the 40 years of research in this area, Tinto has failed to examine the uniqueness of minority students and what factors influence persistence based on these differences.

The developments in student retention have followed Tinto's research; however, many assumptions were later identified disputing the student departure model. Tierney (1999) began to question these assumptions and started to investigate student departure from a racial perspective, noting Tinto did not consider the effects of oppression and discrimination. Tinto's theory assumed that student integration into the culture of the institution was an experience that did not differ based on race (Tierney, 1999).

Other assumptions Tierney (1999) identified with Tinto's Student Departure Theory included the rights of passage from one culture to another was with a foreign culture, and students had to experience a "cultural suicide" to transition into the institution culture. Tierney (1999) recognized that Tinto's assumptions did not take into consideration the cultures and experiences of minority students including African Americans, Hispanics, and Native Americans. The student departure model was based on white American students and their culture and their ability to disconnect from that culture and integrate into the academic culture at institutions of higher education (Tierney, 1999).

The rite of passage postulated in the Student Departure Theory by Tinto derived from Durkheim's Suicide Theory and VanGepp's Initiation Ritual Theory (1972). According to Tinto (1972), college students had to disassociate themselves from their own culture in order to go

through a form of initiation into the academic institution. The ability of the students to commit cultural suicide and integrate themselves into the academic culture would determine their ability to be successful and persist in college (Tinto. 1972). Tierney (1999) challenged this notion by identifying that cultural adaptation for minority students was within their culture, not another culture. The example Tierney (1999) provided was Navajo rite of passage from youth to adolescence, both within the Navajo culture. It was not a rite of passage from the Navajo culture to another (Tierney, 1999). Tinto (1972) assumed the students would leave their former culture and assimilate into the culture of the institution and not bring forth anything. However, this model is not the case for minority students because of the different lived experiences in their own cultures (Tierney, 1999).

In addition to the lived experiences of minority students, Tierney (1992) began to further investigate the experience of minority students in higher education and what contributed to their success. Through this investigation, Tierney (1999) identified instances where academic institutions recognized and supported the culture of African Americans. Other studies focused on the success of Native American students whose institution had integrated the culture of Native Americans (Tierney, 1999). The students fared better than those in institutions where the culture was not recognized and valued (Tierney, 1999). Tierney (1999) further concluded that when minority students are confident in their cultural identity, their chances of graduating increases.

As the studies in persistence kept evolving, the exploration into resilience came forward. HeavyRunner and Marshall (2003) defined resilience as “the natural, human capacity to navigate life well. It is something every human being has—wisdom, common sense. It means coming to know how you think, who you are spiritually, where you come from, and where you are going” (p. 15). HeavyRunner and Marshall (2003) identified specific cultural protective factors that

contribute to the resilience of American Indian students: spirituality, family strength, elders, ceremonial rituals, oral traditions, tribal identity, and support networks. These cultural factors supported the students, their families, and communities (HeavyRunner & Marshall, 2003).

With the exploration by Tierney (1999) into differences in student departure when based on minority students, including Native Americans, and the identification of cultural protective factors by HeavyRunner and Marshall (2003), Tinto's (1972) original model of student departure was changing. The work from Tinto described student departure, Tierney identified the under-representations and minority differences, and HeavyRunner and Marshall specifically identified the cultural supports of Native American students. Thus, the foundation of American Indian student persistence was emerging. The next development in the research involved an indigenous theory on educational persistence.

Non-Native researchers had exclusively dominated the theoretical foundation for educational persistence. The studies conducted did include American Indian representation; however, most of the research had not been conducted through the lens of an American Indian. HeavyRunner-PrettyPaint brought the indigenous theory of educational persistence forth in 2009, focusing on tribal college students. The grounded theory methodology helped her theory to emerge through the analysis of the double-layer focus group data. This theory was the first indigenous theory of American Indian students in a higher education setting.

Two research questions guided HeavyRunner-PrettyPaint's (2009) study: (a) what is it like for tribal college students to manage the integration of academic, social, and cultural responsibilities? , and (b) how do community and college memberships influence educational persistence for tribal college students? Several sub-questions that further explored student persistence of tribal college students supported these two questions.

Two constructs emerged from the stories of the tribal college students to describe the theory and what contributes to persistence. Visions of success represented a student's understanding of the importance of integration and becoming part of the college community (HeavyRunner-PrettyPaint, 2009). Circles of relationships meant the influence of family, community, and academic groups (HeavyRunner-PrettyPaint, 2009). The root of tribal college student persistence existed in balancing the responsibilities and memberships (HeavyRunner-PrettyPaint, 2009).

The grounded theory of tribal college student persistence significantly affected the body of knowledge in this area. First, the theory developed using a sample of American Indian students in higher education; second, the emergence of this theory was based on the stories of these American Indian students; and third, the theory developed through the appropriate cultural lens of an American Indian researcher who could understand and relate to the shared experience of an American Indian student.

HeavyRunner-PrettyPaint (2009) concluded that the integration in social and academic circles indicates strong predictors of retention and degree completion, similar to Tinto's (1993) findings. The responsibilities in these three identified circles included 17 different areas in which students were balancing. The students explained various memberships and came to understand that their cultural memberships and responsibilities helped them the most to not give up (HeavyRunner-PrettyPaint, 2009) and persist.

The results of HeavyRunner-PrettyPaint's (2009) study had important implications for understanding American Indian student persistence. First, understanding indigenous ways of knowing were critical for American Indian student persistence; second, the study itself based on student experiences provided a framework for tribal colleges; and third, the study incorporated

cultural context in terms of place, family, community, and sovereignty through language, history, and political status in the United States (HeavyRunner-PrettyPaint, 2009). This study provided an accurate cultural lens to research and understand the experience of American Indian students.

The grounded theory of tribal college student persistence marked a turning point in understanding the American Indian undergraduate student experience in higher education. The study recognized the foundational research in student persistence (Tinto, 1993), moved forward the recommendations in other studies that considered a unique minority student experience, and resulted in an advancement of understanding American Indian student persistence. The explanations to this point focused on undergraduate American Indian students with assumptions that the same may be true for graduate students. Only since 2009 has research focused on American Indian graduate students, including the exploration of persistence and protective factors.

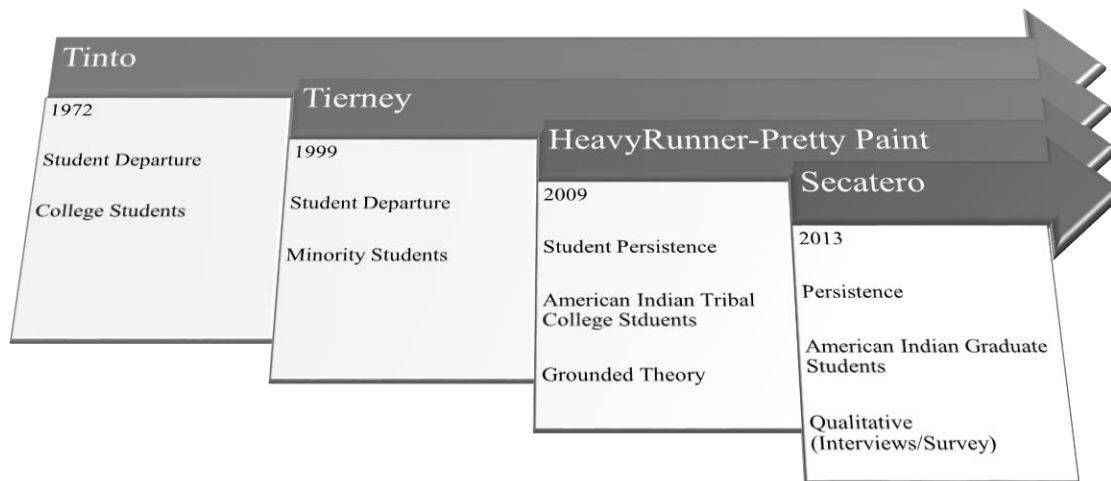
Secatero (2009) completed a study that examined the persistence and success factors of American Indian graduate students. His qualitative study concluded with the development of a model of graduate student success based on the corn plant, which is deeply rooted in the culture of the Navajo people. Four sections of the corn plant represented four issues reported by the students: (a) spiritual well-being, (b) mental well-being, (c) social well-being, and (d) physical well-being (Secatero, 2009). The model developed in the study serves as a foundational piece to understanding the Indigenous perspective and experience in graduate school.

The four major issues identified in the study by American Indian graduate students all exist simultaneously and influence persistence (Secatero, 2009). Spiritual well-being includes self-actualization, belief system, religion, ceremony, and self-acceptance. Mental well-being is described as cognitive development, intellectual growth, critical thinking, decision making, and

advanced knowledge. Social well-being is based on family influence, networking, communicative modes with colleagues, literacy, and leadership. The last major issue of physical well-being includes endurance, hard work, diet, and exercise. Each issue is explained from an American Indian perspective to further understand how issues influences persistence (Secatero, 2009).

The four foundational pieces reviewed in this section set the foundation for the development of student persistence from a theoretical perspective. The focus of this study was American Indian graduate student persistence, arrived upon through the discussed research. The progression of the research is presented in the Figure 1 below. The beginning was noted with Tinto's (1972; 1987) work on student departure; Tierney (1992; 1999) followed the exploration and introduced the minority perspective that begins to take into consideration oppression and discrimination as influential factors along with unique cultural strengths; HeavyRunner and Marshall (2003) defined cultural protective factors for American Indian students; HeavyRunner-PrettyPaint (2009) developed the first indigenous theory of student persistence; and Secatero (2009) explored American Indian graduate student persistence through an indigenous lens that identifies influential factors specific to these students.

Figure 1 Evolution of Student Persistence Literature



Summary

This chapter introduced the literature on American Indian graduate student persistence. The history of higher education, American Indian education, and tribal colleges and universities was explored first. An overview of American Indians enrollment in mainstream colleges and universities, followed by a discussion on barriers in higher education were explored next. The chapter concluded with a discussion on persistence, degree completion for American Indian master and doctoral students, and a theoretical overview.

Chapter Three: Methodology

This study employed a quantitative survey method to reveal what persistence factors influence American Indian graduate students. Creswell (2009) stated that a quantitative methodology provides a numerical description of attitudes, trends, and perspectives. This study explored the perspectives of American Indian graduate students to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students. The data collected provided numerical descriptions of the attitudes held by American Indian graduate students and the persistence factors that influence degree completion.

Research Design

This study employed a survey design to generalize from a sample to a population to understand the perceptions (Creswell, 2009) of American Indian graduate students and persistence of graduate degree completion. This design collected data in an efficient manner from a large sample of American Indian graduate students from graduate institutions across the United States. The survey was cross-sectional (Creswell, 2009) as the data collected was from a single point in time. The data were collected using a web-based self-administered questionnaire (Creswell, 2009) to collect data from American Indian graduate students across the United States.

Hypothesis

The theoretical foundation along with the previous research around student persistence, specifically for American Indians, provided the parameters of the study based on known information. The theoretical foundation for persistence includes Tinto (1972), Tierney (1990),

and for American Indian students HeavyRunner-PrettyPaint (2009), Secatero (2009), and Bird (2017). The research questions follow:

1. What factors contribute to American Indian graduate student persistence?
 - a. Do academic success factors relate to American Indian graduate student persistence? This question is based upon Demmert's (2001) research on the influence of family, culture, finances, academic skills, mentors, supportive faculty/staff, and self-perception for American Indian students and supported by HeavyRunner-PrettyPaint (2009), Secatero (2009), and Bird (2017).
 - b. Do American Indian academic programs relate to American Indian graduate student persistence? This question derives from Secatero's work on American Indian graduate student persistence and inquiring about the influence of academic faculty, staff, student support services, and other entities within the academy with a focus on American Indians (2009).
 - c. Do student self-perceptions relate to American Indian graduate student persistence? This question specifically is drawn from the study on American Indian graduate student persistence (Secatero, 2009) and the focus on understanding how students view themselves in graduate school in the four areas of physical, social, mental, and spiritual wellbeing (Secatero, 2009).

The research questions were answered by testing the following hypotheses:

- H₁. Academic success factors affect American Indian student persistence.
- H₂. American Indian academic programs affect American Indian graduate student persistence.
- H₃. Student self-perceptions affect American Indian graduate student persistence.

Population and Sample

The population for this study consisted of American Indian graduate students. The researcher used a multi-stage sampling design to identify participants. The first stage identified and contacted individuals with large personal and professional networks of American Indians and requested assistance in disseminating the survey. The second stage utilized Facebook to post and share the Internet survey information. Upon receipt of the survey, individuals chose to participate in the study based on convenience and availability. These respondents comprised the sample for this study, based on sharing through personal and professional networks and the free will of participants to complete the survey.

The complete population was not accessible for the scope of this study, so selection was based on disseminating the survey to as many American Indian graduate students as possible. This effort included identifying student organizations along with contacting known faculty at institutions throughout the United States to request their assistance in disseminating the survey. This is similar to a snowball sampling method however this study used a network strategy (Nardi, 2006). The network strategy targeted known contacts with access to American Indian Graduate students and then requested this activity be continued on with whomever the secondary contacts were. The results of this study were only generalized to the selected organizations and institutions included and not the entire population of American Indian graduate students.

The original Secatero study used the qualitative questions, and had a sample size of 32 participants (Secatero, 2009). This quantitative survey (modified question of the Secatero Study) and the dissemination method utilized in this study garnered a larger response rate. An estimated sample size was calculated using a sample size calculator; however, the scope of the population

was not attainable for this study. This study implemented a target of 100 collected surveys as the goal sample size.

This study is meant for the purposes of contributing to the body of knowledge on American Indian student persistence. The concept of generalizability conflicts with the world-view of many American Indians where the uniqueness of individuals and tribes is given recognition and not the “blanket” approach to drawing conclusions. Although common conclusion may emerge from this study it is not intended to explain the experience of all American Indian Graduate students.

Instrument

The instrument used for this study was from a qualitative study conducted by Secatero (2009) on the experiences of American Indian graduate students. The original 72-question instrument was modified to fit the scope of this quantitative study. Several questions were used in the original format although changes were made to the order in which the questions were presented along with changing questions to fit a quantitative format for measurement and analysis. The survey consisted of 62 questions in total, 52 of the questions were from the original instrument created by Secatero. The additional 10 questions were specifically inquiring about persistence (questions 4,5, 9, 10, and 11), the student’s relationship with their mentor (question 16), family support (question 39), the student’s relationship with individuals they provide care for (question 42), confidence in completing degree (question 55), and gender (question 57). The survey was disseminated using an online host, Survey Monkey. Survey Monkey is a site for hosting surveys and collecting data in an online format. The site includes tools and templates for survey development, capabilities for targeted dissemination and tracking of respondents and collecting data, and analysis of data with visual indicators of results.

The survey consisted of a series of questions divided into five areas. Participants were asked two qualifying questions in order to move forward to complete the survey (Are you a graduate student? and are you American Indian?). The next section in the survey was graduate status. This section was comprised of 11 questions: financial aid, American Indian culture, graduate school experience, and self-awareness. These five areas included questions to collect information from the American Indian graduate students on persistence factors and the influence of these factors on degree completion in graduate school.

Validity and Reliability

The instrument identified for this study was originally used as a qualitative survey and did not include a discussion on validity and reliability. An American Indian (Secatero) developed the qualitative survey for the purpose of learning about American Indian graduate students; the critical reason for selecting this instrument for this study. Other persistence scales were identified however they were not validated on American Indian populations. The instrument was adapted to fit the scope of this quantitative study by producing statistical measures of the proposed persistence factors, using a series of scaled variables. Scaled variables are used to measure a theme or concept when no formal measure exists. These types of variables are applied by conducting a statistical measure using Cronbach's Alpha (Schmitt, 1996) to test how well a series of questions measures the intended concept. The Chronbach Alpha score indicates the level of inter-rater reliability of the questions, which is the relationship between the patterns of responses. The high Cronbach Alpha scores indicated a strong relationship between the variables and scaled variables were created.

This study explored the perceptions of American Indian graduate students. The study the instrument was adapted from did not address validity. The instrument was comprised of a series

of questions including the scaled variables based on known persistence factors described in Chapter Two. The foundation of previous research on persistence factors of American Indian students provided the content validity (Creswell, 2009).

Variables

This study was conducted using one dependent variable and a series of independent variables. In order to operationalize the concepts for this study, scales were used to construct the variables for the success factors, American Indian programs, self-perception, and persistence. Each of the scaled variables was calculated by first conducting a Crohnbach Alpha reliability score, included with each variable below. The questions used to address each of these variables are included in

Appendix L.

Dependent Variable

The dependent variable was used to measure the effects of change from the independent variables.

Student persistence. The continued mobility of students to the next level in their education—such as progressing through the levels in basic skills—or staying enrolled in college from term to term or year to year (Seppanen, 2007). This scaled variable was created from questions inquiring about how many times students had stopped and started school again and how many total terms had they taken off from graduate school (Alpha = .753; see

Appendix L for questions in scale).

Independent Variables

The independent variables were used to influence the change on the dependent variables

Academic success. Identified factors, which contribute to Native American student persistence toward degree completion. The literature review by Demmert (2001) identified the following as the common factors for success of Native American students: (a) family support, (b) cultural identity, (c) financial support, (d) academic skills, (e) mentors and supportive faculty, and (f) bicultural curriculum. This study focused on the success factors of family support, cultural identity, financial support, academic skills, mentors, supportive faculty and staff, and

self-perception based on the adaptation of the instrument. Each of these factors represented a scaled variable comprised of questions that asked about different aspects of each factor.

Family support. This scaled variable was comprised of data from questions inquiring about the support a student receives from their family (Demmert, 2001) and if it is a high priority in social and spiritual wellbeing (Secatero, 2009). A question specifically asking if their family is supportive of their graduate education was not included in this scale due to lowering the Alpha score considerably (Alpha = .881; see

Appendix L for questions in scale).

Cultural identity. This variable was comprised of questions asking about a student's cultural identity and included questions about where the student was raised in terms of on or off a reservation, community support, participation in cultural activities, language, connection with other American Indian students, and returning home. Cultural identity was not a scaled variable due to a low Alpha score when all indicators were combined. This variable was comprised of a single question inquiring if the student identified as American Indian.

Financial support. This variable included questions on financial aid, loans, research or teaching assistantships, scholarships, fellowships, work-study, service learning programs, and employment with hours worked per week (Secatero, 2009). This scaled variable consisted of data from 11 questions (Alpha = .733; see

Appendix L for questions in scale).

Academic skills. This variable focused on academic preparation, previous degrees earned, GPA, applying to graduate school, entrance exams, and the importance of literacy skills (Secatero, 2009). This scaled variable consisted of data from 18 questions (Alpha = .751; see

Appendix L for questions in scale).

Mentors. This variable was constructed from a question asking if the students had a graduate mentor. Other items were included in the assessment of the scale and were omitted due to a low Alpha score.

Supportive faculty. This variable focused on the student's perception of how supportive the faculty and the staff were during the graduate school experience. The questions asked included rating how helpful faculty were, and if the student had a mentor (Secatero, 2009). The scaled variable was comprised of data from 6 questions (Alpha = .668; see

Appendix L for questions in scale).

Academic programs. This variable focused on the student's perception of how supportive student service programs were during graduate school. The questions asked included rating how helpful student service providers were and if students had a mentor (Secatero, 2009). The scaled variable was comprised of data from 10 questions (Alpha = .789; see

Appendix L for questions in scale).

Self-perception. This factor was comprised of how Native American students saw themselves in terms of their self-esteem and self-efficacy and the elements of these constructs that contribute to persistence (Gloria & Robinson Kurpius, 2001). Additionally, this factor included how the students saw themselves and their abilities in terms of being students in a graduate program. The questions included physical, social, mental, and spiritual wellbeing along with the frequency of specific experiences, campus climate, and school academics (Secatero, 2009). This scaled variable consisted of 45 questions (Alpha = .842; see

Appendix L for questions in scale).

Physical well-being. This factor addressed how much of a priority different aspects of physical well-being were to American Indian graduate students. It included questions about hard work, endurance, diet, and exercise (Secatero, 2009). This scaled variable consisted of 3 items (Alpha =.804, see

Appendix L for questions in scale).

Social well-being. This factor addressed how much of a priority different aspects of social well-being were to American Indian graduate students. It included questions about family, communication, and leadership (Secatero, 2009). This scaled variable consisted of 3 items (Alpha = .718, see

Appendix L for questions in scale).

Mental well-being. This factor addressed how much of a priority different aspects of mental well-being were to American Indian graduate students. It included questions about intellectual growth, critical thinking, and decision-making (Secatero, 2009). This scaled variable consisted of 3 items (Alpha = .906, see

Appendix L for questions in scale).

Spiritual well-being. This factor addressed how much of a priority various aspects of spiritual well-being were to American Indian graduate students. It included questions about family, faith, sense of belonging, and religious activities (Secatero, 2009). This scaled variable consisted of 4 items (Alpha = .884, see

Appendix L for questions in scale).

Experience. This factor was comprised of questions asking the frequency certain experiences students may have had. These experiences included stress, depression, tiredness, social life, sickness, and other experiences (Secatero, 2009). This scaled variable consisted of 9 items (Alpha= .602, see

Appendix L for questions in scale).

Campus climate. This factor was comprised of questions asking students to rate different aspects of campus climate. This variable included questions asking about friendliness of

students, diversity, and safety (Secatero, 2009). This scaled variable consisted of 4 items (Alpha = .955, see

Appendix L for questions in scale).

Academics. This factor was comprised of questions asking students to rate their satisfaction with academics at their institution. It included questions about courses, work, creativity, and work groups (Secatero, 2009). This scaled variable consisted of 6 items (Alpha = .822, see

Appendix L for questions in scale).

Data Collection

The data for this study were collected using Survey Monkey, an online survey site. The capabilities of the site include survey development, dissemination, tracking, collection, and preliminary analysis. The survey was developed using the online site, which aided in formatting, layout, and unique identification by allowing the user to create an identifiable link to the survey through the site. The online site allowed dissemination through designated electronic mailing lists or the sharing of the link through various platforms such as e-mail, Facebook, text, and instant messaging. Survey Monkey allowed the user to schedule e-mails and track open rates, survey progress, follow up e-mails, and survey completion. The completed surveys were housed within the online site in various forms with the capability of exporting the raw data into Microsoft Excel or SPSS formats. Simple demographic statistics were provided for the user including visual graphics of charts, figures, and tables.

Data Analyses

The analysis of the data collected began with descriptive statistics presented for the sample, followed by a bivariate correlation, and concluded with a multiple linear regression. These analyses provided the information to assess the research questions and hypotheses in this study of understanding the relationship between persistence factors and American Indian graduate student. The *a priori* assumptions for this study include normal distribution of the data, and homoscedasticity for equal variances. A codebook found in Appendix K describes the variable name in the data set, level of measurement, and coded answers. Each of the scaled variables is at the interval level of measurement as none of the scales have a true zero starting point necessary for a ratio level of measurement. The bivariate correlation provided the statistics

on the scaled variables and to assess the strength and direction of the relationship between the dependent variable (student persistence) and the independent variables (family support, cultural identity, financial support, academic skills, mentors, supportive faculty and staff, self-perception (physical well-being, social well-being, mental well-being, spiritual well-being, experience, campus climate, and academics)). After the bivariate correlation, a multivariate linear regression was conducted with the independent variables on the dependent variable.

Summary

This chapter introduced the methodology for this study on American Indian graduate student persistence. The method, research design, and hypothesis were presented in the beginning of the chapter. Next, the population and data collection methods were discussed. The survey instrument was described along with a section addressing the validity and reliability of the instrument, followed by a presentation of the proposed variables. The chapter concluded with an overview of the data collection method and the data analysis for this study.

Chapter Four: Findings

This chapter provides the findings for this study. The response rate and sample demographics are provided in the beginning of the chapter. Next, the survey results are presented through summaries of graduate status, faculty and department support, financing graduate education, tribal ways of knowing, and self-awareness. The statement of the hypotheses, bivariate correlation, and multiple regressions comprise the next section. The chapter concludes with a summary.

Response Rate

The researcher disseminated the survey on February 1, 2017, through e-mail to professional and personal contacts, listserv distribution, and Facebook. The initial e-mails were distributed to individuals including those who provided letters of commitment to disseminate the survey link to professional and personal contacts. These selected individuals were connected with academia in various capacities including current graduate students, graduate faculty, department coordinators, program directors, departmental chairs, and collegiate deans. A total of 14 originating e-mails including the IRB approved flyer, survey description, and survey link were disseminated. In addition to the e-mails, the survey information was disseminated through four student listservs and one newsletter specifically for American Indian graduate students.

The primary dissemination method used was Facebook. Facebook is an online social media website used for social networking between its users. The initial dissemination through Facebook involved a single post as well as personal messages to professional and personal contacts. Both of these messages included the approved IRB flyer, a description of the survey, and the survey link. A total of 47 individual messages were sent during the first dissemination date.

A second wave of dissemination on February 22, 2017, included e-mails to professional and personal contacts, listserv distribution, and Facebook posts. The announcements emphasized the survey would close on February 28, 2017. This left a total of six days for participants to complete the survey by the February 28th deadline. After this second dissemination effort, a total of 14 e-mails, 4 listserv announcements, 1 newsletter article, 10 Facebook posts, and 85 Facebook shares concluded the dissemination phase.

When the data collection phase concluded, the period between February 1 and February 28 generated a total of 110 responses to the online survey through Survey Monkey. Of these 110 responses, a total of 109 participants electronically signed the informed consent by checking the box indicating they had read the study description, been informed of the study risks and benefits, were provided information should they have questions or concerns, and voluntarily agreed to participate in the study. One participant indicated they either did not read or understand the description of the study and opted to not participate.

After the 109 participants agreed to voluntarily participate in the study, two qualifying questions allowed continuation through the rest of the study. The first qualifying question was if the participant was a graduate student, which they indicated either yes or no. Of the 109 participants, 72 indicated they were graduate students and 36 did not (one participant did not answer this question). The second qualifying question asked if the participants were American Indian, which participants answered either yes or no; 72 participants indicated yes.

The responses from the 72 qualified participants were reviewed using the Statistical Package for the Social Sciences (SPSS) software. The data were exported from Survey Monkey into an SPSS file. This file is the data set used to establish the sample for this study. After reviewing the 72 qualified responses, a total of 9 cases in the data set had no responses beyond

the two qualifying questions. The researcher made the decision to omit these cases from the data set, reducing the overall number of responses to 63. The sample size for this study was $n = 63$.

Sample Demographics

This section reviews the characteristics of the participants who completed the survey. The characteristics included age, gender, marital status, number of children, and employment. In addition to these characteristics, other demographic information described, including tribal affiliation, tribal language and fluency, place participants were raised, and participation in tribal events with specific information.

The survey participants ranged in age from twenty-two years old to fifty-five years old ($n = 54$; 9 missing). The mean age of the participants was thirty-four years old. The span of ages indicated that approximately 30% of the participants were in their twenties; 45% were in their thirties; 17% were in their forties; and 8% were in their fifties. Of the 54 respondents, 42 (78%) identified as female and 9 (17%) identified as male. The remaining 5% ($n=3$) selected “other” for gender and reported as follows: gender fluid; non-binary/Two Spirit; and transgender, Two Spirit.

Survey participants reported a span of marital status. Of those who responded ($n=54$; 9 missing) to the question, 45% were single, 41% were married, 9% were divorced, and 5% selected “other” and reported common law, domestic partnership, or in partnership. Of these 54 respondents, approximately half (48%) reported having children; 19% had one child, 27% had two children, 27% had three, 19% had four, and 8% had five or more children. The final demographic question inquired about employment; 80% reported they were currently employed.

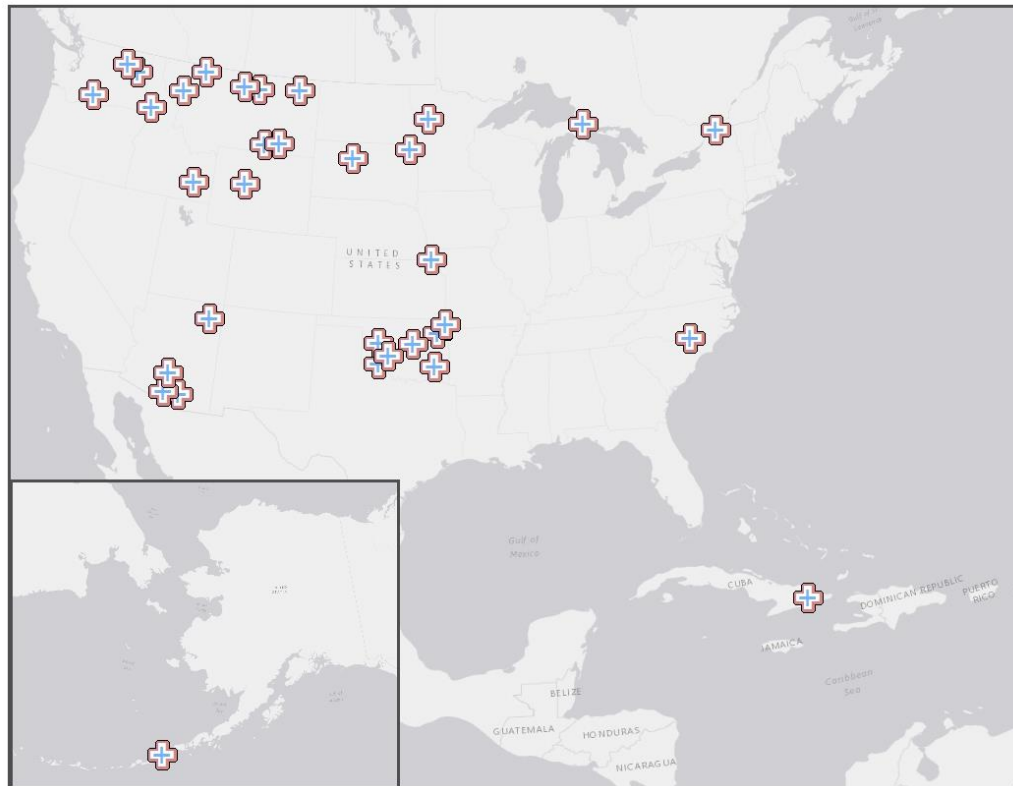
The next series of demographic questions focused on American Indian characteristics. These characteristics include tribal affiliation, tribal language, fluency of language, location they

were raised, and participation in tribal events. The survey participants (n=63) represented 41 tribes:

Aaniih (Gros Ventre)	Aleut	Arapaho
Assiniboiné	Blackfeet	Cherokee Nation
Cherokee Nation of OK	Cheyenne River Sioux	Chippewa-Cree
Choctaw Nation of OK	Colville Conf. Tribes	Conf. Salish & Kootenai Crow
Diné (Navajo)	Eastern Shoshone	Fort Peck Assiniboiné
Gila River Indian Comm.	Akimel O'odham	Tohono O'odham
Gros Ventre	Kiowa	Southern Cheyenne
Arapaho	Lumbee Tribe of NC	Metis
Nez Perce Tribe of Idaho	Northern Cheyenne	Pascua Yaqui Tribe
Chippewa-Cree	Sac & Fox	Ioway
Sault Ste. Marie Chippewa	Seneca Nation of Indians	Shoshoe-Bannock
Spokane	St. Regis Mohawk Tribe	Sisseton Wahpeton Oyate
Taíno (U.S. Caribbean)	Tuscarora	White Earth
Yakama		

These tribes represent nations across the lower 48 states along with Alaska and the U.S. Caribbean. Each tribe was individually represented with the exception of Blackfeet (n=9, 14%), Choctaw (n=4, 6%), and Navajo (n=4, 6%). A map of the tribes represented in this study is found in **Error! Reference source not found.** below.

Figure 2 Map of Tribes Represented in Sample



Along with understanding the tribal affiliation of survey participants, understanding the languages affiliated with these tribes was also important. The survey participants (n=63) reported the following 31 tribal languages: Aaniiih, Anishinaabemowin, Arawakan, Assiniboine, Bannock, Baxoje, Blackfeet, Chahta, Cheyenne, Choctaw, Cree, Crow, Dakotah, Diné Bizaad, Eastern Shoshone, Kiowa, Kootenai, Lakota, Mi'kmaq, Mohawk, Nakona, Navajo, Nimipuutimt, Nselxcin, O'odham Neo'oki?, Salish, Shoshone, Sioux, Spokane Salish, Taíno, and Unangan. The tribal languages with more than a single representation included the following: Blackfeet (n=7, 11%); Choctaw, Cree, and Navajo (n=3 each, 5%); and Cheyenne, Lakota, and Salish (n=2 each, 3%).

The survey also asked the participants about the fluency of their first tribal language and the fluency of other language. A total of 54 responses were collected about fluency of the first

tribal language as follows: 60% (n=33) reported they were non fluent, 20% (n=11) reported they understood the language but did not speak it, 7% (n=4) were semi fluent, 3% (n=2) indicated they could carry on a conversation, and 5.6% (n=3) were fluent in their native tongue. A total of 29 responses were received for the other language fluency question. Of the 20 responses, 45% were non fluent, 3% understood but did not speak, 3% were semi fluent, 7% could carry on a conversation, and 3% were fluent in the other language. Across both of the fluency questions, only 8.6% were fluent in a tribal or other language.

Another important characteristic of American Indian graduate students involved the place where the students were raised. The survey asked the participants were asked about where they were raised. A total of 55 responses were received as follows: 38% reported being raised on a reservation or tribal community, 18% were raised off of a reservation, 24% were raised in an urban area, and 20% were raised in multiple areas.

Additionally, participants were asked about their involvement in tribal events. A total of 55 responses were received, of which 84% indicated they do participate in tribal events. The participants indicated the following tribal events: American Indian Society of Washington, D.C. events; annual pow wow; at-large member events; basketball; ceremonies; ceremonies and powwows; ceremonies and celebrations; ceremonies and community events; ceremonies, powwows, tribal council meetings; ceremonies and traditions; community events, feasts, powwows, volunteer work; community feasts and student events; community pow-wows, give-away announcer, pow-wow advisor, and Sun Dance; district meetings and celebrations; elections and Labor Day festival; fall encampment and work with THPO office; traditional community gatherings, local gatherings, harvest dinners, powwows, winter dances; Labor Day festival, Longhouse ceremonies, Chinook Dances, Mul-Chu-Tha (annual rodeo and fair) and heritage

center events; Native American Church; powwows, seasonal ceremony, cultural events; powwows, tribal ceremony, sweat lodge; powwow in tribal communities, community graduation; powwow, Round Dance, sweat, beadwork and dress making; powwow and sweat lodge; powwows; powwows and social gatherings, events related to tribal college and tribal political events; powwows, ceremonies, NAC, Kiowa Gourd Clan, O-Ho-Mah Lodge; powwows, name givings, celebrations, Round Dances, first kills/berry picking/fishing rights; religious ceremonies, powwows; seasonal ceremonies and intertribal powwows; Sun Dance, tribal events in the state; sweat lodges and OKAN; traditional Blackfeet and Sun Dance, powwow; and year-round ceremonies (sweats, big-drum). Some events were duplicated in name only. The diversity of tribes needs to be acknowledged as powwows, the most common answer, may differ from tribe to tribe.

Survey Results

This section explores the results of the survey. A total of five sections comprised the survey: graduate status, faculty and department support, financing graduate education, tribal ways of knowing, and self-awareness. The survey section includes descriptive statistics and the basis for the inferential statistics to test the hypotheses presented in this study.

Graduate Status

The first section in the survey was graduate status. The questions in this section inquired about the participants' current status in graduate school. The questions included the following options: registered for courses, number of consecutive semester enrollment, degree major, projected graduation date, and influential factors on major selection. The responses (n=63) indicated 43% of the participants were registered for courses next semester; 24% were not currently registered but will be; 8% were currently on a leave of absence with full intent of re-

enrolling; 14% were not registered due to graduating in the current semester of completing this survey; and 11% indicated they were not registered. In addition, the participants were asked how many consecutive semesters they have been enrolled in graduate courses (n=63); the number ranged from one semester up to 16 semesters.

The next question in the graduate status section inquired about the discipline in which the students were enrolled. A variety of disciplines were represented (n=63): American Indian studies, American Studies, Anthropology, Biochemistry/Biophysics, Business Administration and Leadership, Clinical Psychology, College Student Affairs Administration, Counseling Psychology, Creative Writing, Cultural and Medical Anthropology, Design, Education Specialist, Education, Education Administration, Education Leadership, Educational Leadership, Environmental Law and Policy, Environmental Science, Public Health, Physician Assistant, Geographic Information Systems (GIS), Health Administration, Healthcare Administration, Higher Education, Human Dimensions of Natural Resources, Human Services, Indian Law, Interdisciplinary Studies-Native American Studies and Literature, Law, Higher Education in Student Affairs, Social Work, Mathematics Education, Business Administration, Media Communications, Native American Art History, Native American Studies, Nursing, Family Nurse Practitioner, Pharmacy, Postsecondary Education, School Administration and School Counseling, Socio-Cultural Anthropology, Sociology, Sociology and Demography, Studio Art and Arts Management, Writing Rhetoric, American Culture, and Independent Interdisciplinary Studies-Chemistry, Geoscience and Environmental Studies. The majority of the disciplines were reported once with the exception of Native American Studies, Education, and Media.

The next series of questions asked participants to rate the priority each factor had in the decision of choosing a major discipline for graduate school. The six factors for this question

included a high paying job, intellectual curiosity, fulfilling career, international opportunities, prestige, and parent or community desires. The responses for a high paying job (n=61, 2 missing) were as follows: 10% indicated high priority, 23% above average priority, 41% average priority, 10% below average priority, and 16% low priority. The next factor, intellectual curiosity (n=61, 2 missing), was prioritized as such: 59% indicated high priority, 31% above average priority, and 10% average priority. The responses for fulfilling career (n=61, 2 missing) were as follows: 77% high priority, 20% above average priority, and 3% average priority. The priority for international opportunities included the following: 3% high priority, 11% above average priority, 25% average priority, 21% below average priority, and 40% low priority. The second to last factor, prestige, resulted (n=61, 2 missing) as such: 10% high priority, 20% above average priority, 36% average priority, 20% below average priority, and 14% low priority. The last factor, parent or community desires, was prioritized (n=61, 2 missing) as follows: 33% high priority, 21% above average priority, 31% average priority, 7% below average priority, and 8% low priority.

The final questions in the graduate status section inquired about GPA history, time off in the course of study, degree attainment and expected graduation date. The survey participants were asked about their GPA for their associates, bachelors, masters, professional and doctorate degree and reported as follows: 1) associates degree (n=47, 16 missing) GPA 3.6-4.0 (19%), 3.1-3.5 (15%), 2.6-3.0 (5%), 2.0-2.5 (2%) N/A (60%); 2) bachelors degree (n=57, 6 missing) GPA 3.6-4.0 (26%), 3.1-3.5 (53%), 2.6-3.0 (18%), 2.0-2.5 (3%); 3) masters degree (n=55, 8 missing) GPA 3.6-4.0 (67%), 3.1-3.5 (18%), 2.6-3.0 (14%) N/A (11%); 4) professional degree (n=37, 26 missing) GPA 3.6-4.0 (5%) N/A (95%); and 5) doctorate degree (n=48, 17 missing) GPA 3.6-4.0

(41%), 3.1-3.5 (5%), 2.6-3.0 (2%), 2.0-2.5 (2%), N/A (50%). A majority of the survey participants reported a GPA higher than a 3.0 across the board for all degrees.

The participants indicated 23% had taken a term off during the course of their graduate program (77% reported no; n=61, 2 missing). The range of times a participant had stopped and started again during their graduate program included 3 times (2%), 2 times (5%), 1 time (15%), 0 times (15%), and one respondent selected other: “I took 10 years off” (2%). Participants were also asked the total number of terms they had taken off; the range was 0 terms up to 30 terms (terms included both semesters and quarters). The average time off reported by participants was five terms and the highest frequency of reported terms off was one or three terms.

The survey participants reported 51% would attain a master’s degree upon graduation, 4% would attain a professional degree, and 46% would receive a doctorate degree. The range of expected graduation dates was from May of 2017 through May of 2022. The participants were asked if any one in their family had earned a graduate degree (n=61, 2 missing); 44% reported someone in their family had earned a graduate degree, and 53% did not.

Faculty and Department Support

In this section of the survey, participants were asked question about the support they have received on campus. Questions about mentorship, access to resources, credit hours, and enrollment in the program were asked to understand the faculty support and departmental support for American Indian graduate students. The respondents (n=55, 8 missing) indicated 76% had a mentor and 24% did not have a mentor who helped with advising for graduate school. A variety of relationships were reported regarding who the mentor was (n=63): Native graduate student, advisor, undergraduate advisor, friend, alumni of school, thesis committee chair, chair, committee chair, dissertation committee chair, externship supervisor, faculty, fellowship program

coordinator, GRA supervisor, graduate advisor, major advisor, mentor in mentorship program, supervisor, program director, undergraduate mentor and research collaborator, Native American Excellence Center, outside university, doctoral advisor, professional, professor, program coordinator, husband, Special Advisor to the President of American Indian Affairs, university staff (not faculty), and work mentor. The mentors most frequently reported included advisor and program coordinator.

The survey respondents were asked to report the helpfulness of different student support providers (n=54, 9 missing). **Error! Reference source not found.** reflects the results.

Table 2 Student Service Provider helpfulness to American Indian Graduate Students

<i>Provider</i>	<i>Extremely helpful</i>	<i>Above average</i>	<i>Average</i>	<i>Below average</i>	<i>Not helpful at all</i>	<i>N/A</i>
Academic advisor	24.07% (13)	25.93% (14)	14.81% (8)	24.07% (13)	7.41% (4)	3.70% (2)
Department chair	5.77% (3)	25.00% (13)	25.00% (13)	21.15% (11)	15.38% (8)	7.69% (4)
Department coordinator	3.21% (7)	20.75% (11)	26.42% (14)	11.32% (6)	11.32% (6)	16.98% (9)
Financial aid	17.31% (9)	13.46% (7)	32.69% (17)	19.23% (10)	9.62% (5)	7.69% (4)
Dean of students	1.92% (1)	3.85% (2)	26.92% (14)	9.62% (5)	23.08% (12)	34.62% (18)
Student support services	7.69% (4)	11.54% (6)	28.85% (15)	13.46% (7)	11.54% (6)	26.92% (14)
American Indian programs	21.15% (11)	32.69% (17)	19.23% (10)	5.77% (3)	7.69% (4)	13.46% (7)
Committee chair	19.61% (10)	15.69% (8)	19.61% (10)	11.76% (6)	9.80% (5)	23.53% (12)
Committee members	7.84% (4)	25.49% (13)	23.53% (12)	7.84% (4)	9.80% (5)	25.49% (13)
Enrollment office	.92% (2)	13.73% (7)	35.29% (18)	15.69% (8)	17.65% (9)	13.73% (7)

The responses show participants felt the American Indian programs, academic advisor, and committee chairs were above average or extremely helpful; financial aid and the enrollment office were reported average in helpfulness; and the department chair and dean of students were the least helpful.

The responses (n=55, 8 missing) to the number of times students meet with their advisor each term varied from once per week (14%), twice per month (16%), once per month (24%), once per term (33%), and “other” responses included as needed (2%), two to three times per semester (4%), whenever they are available (2%), only via e-mail (2%), none while on leave (2%), and none (2%). In addition to meeting with an advisor, the survey respondents reported using other resources: attending graduate school workshops (42%), computer online resources (58%), tutoring (12%), off campus centers (10%), and “other” included American Indian Research Team (2%), library resources (2%), community members and tribal college instructors (2%), Native mentoring program (2%), professional development workshops outside the university (2%), U.S. government source (2%), writing center and resources (6%). The student responses indicated the highest category rated for help is meeting with their advisor once a term and using computer online resources.

Students were asked about how many credit hours they enrolled in each year of graduate school; for each of the years from the first year to the fifth year, students enrolled between seven and eleven credit hours each term. The respondents were also asked about the number of American Indian students enrolled in their graduate program. The responses indicated 82% had less than 10 American Indian students enrolled in the graduate program, 5% had between 11 and 20 American Indian students, 2% had between 21 and 30 American Indian students, 2% had over

30 American Indian graduate students, and 9% did not know the number of American Indian students enrolled in their graduate program.

Financing Graduate Education

This sections focuses on how American Indian graduate students finance graduate education. Specific areas of focus included financial aid and the types students receive during their graduate program. Questions were asked about receipt of financial aid, the types, employment, and how many hours per week the student was employed.

The survey participants reported (n=55, 8 missing) 78% received financial aid, while 22% did not receive financial aid. In terms of the type of financial aid, students reported taking out the following types of loans: 59% have taken out federal student loans, 2% state student loans, 5% private loans, and 2% American Indian Graduate Center (AIGC) loans for service. An additional category, “other,” included family assistance (2%), paid by employer (2%), U.S. Department of Education loan to service payback (2%), and none (5%).

Other types of financial aid participants were asked to report on involved the following: 56% have received assistantships or currently are serving as research assistants or teaching assistants, 69% reported receiving scholarships, 49% reported receiving fellowships, and 13% have participated in work study. Included in the section of financial aid, survey participants were asked if they received tribal aid or AIGC fellowships and to specify which type. The responses indicated 40% have received tribal aid or AIGC fellowships as follows: my tribe does not fund graduate students, BEE scholarship with Blackfeet Tribe, Cherokee Nation scholarship funding, Cheyenne-Arapaho Tribes Higher Ed, Choctaw Nation of Oklahoma, Choctaw Nation of Oklahoma Higher Ed Grant, Colville Tribal Higher Education Dept., GRA, Higher Ed, my own tribe, Navajo Nation, AIGC STEM loan for service, Nez Perce Tribe-Higher Ed Scholarship-

AIGC Fellowship-Edna Furber Fellowship, they are all pretty small compared to the actual cost of school, Office of Navajo Nation Scholarship and Financial Assistance, rental assistance about half my \$1,300 rent, scholarship from my tribe, the CIRI Foundation, tribal aid, Tribal Incentive Award (based on grades, not need), and tribal scholarships.

Included in this section on financing graduate education, survey respondents were asked about employment during their graduate program; 84% reported they have been employed during graduate school. Specifically, students were asked to report approximately how many hours per week they worked for each year in graduate school. The responses indicated the first, second, and third year of graduate school, and a majority of the students worked between 11 and 20 hours per week. In the fourth year, this commitment ranged between 21 and 30 hours per week. In the fifth year, it ranged between 11 and 20 hours or 21 to 30 hours.

Tribal Ways Of Knowing

In this section, survey respondents were asked questions about tribal affiliation, tribal language and fluency, where they were raised, community and family support, household, and experience of loss. The questions that asked about tribal affiliation, tribal language, fluency of language, and where they were raised are included in the beginning of this chapter in the sample demographics section.

The first question in this section asked respondents if they had plans to return to their home community for work or a project after graduate school; 46% responded yes, 7% responded no, and 47% were unsure. In terms of support, 95% felt they had family support, and 75% felt they had community support.

The next set of questions focused on responsibility of others during graduate school; 58% responded they were responsible for taking care of others while in graduate school, while 42%

responded no. If the respondents answered yes, they were asked to specify the relationship of the individuals they were responsible for taking care of: 2 children, 3 children, 5 children, my kids, biological children, children, daughter, infant son, son, spouse, husband, grandfather, grandmother, grandma, my kids' great grandmother, parents, mother, niece, nephew, and relatives. The majority of the responses indicated children and grandparents.

The next set of questions inquired about American Indian graduate students who have experienced a loss during graduate school. A total of 55 participants responded to this question, of which 49% reported a loss during graduate school. The next question asked how the loss affected their graduate education: it was my best friend and I wasn't able to go home as it was finals week; concentration loss; depression and my grades suffered; divorce, depression/anxiety, reason behind my leave of absence; emotional distress for part of studies, increased use of support system; emotionally; harder to concentrate, would rather be with family; I had difficulty finishing all of my assignments on time, it was the first semester of my program; I took some time off away from lab work and spent time with family; it affected my productivity, it was hard to do work and concentrate on school; it did, it does, it happens quite frequently, someone from back home dies and I have to try to get home, my home is a 20 hours drive from where I currently live; it made me more determined to continue; it was difficult to focus and participate in class; it was difficult to manage all of my course deadlines and cope emotionally; it was hard but made me more focused; it was several deaths and more than expected; lost my mother, was a very significant loss, impacted my entire life, especially my cognitive abilities and focus on school, cancelled my initial proposal defense and rescheduled for that following semester; made it difficult and had to submit papers late; made it difficult to concentrate and see the purpose; made it extremely difficult to continue; made me feel lonely for being around my family and

Native community; minimally; my grandmother's death was very hard on our family; sad, but resolved to finish; stopped out, took a leave of absence; very difficult to focus on studies while experiencing such grief; and withdrew from one class. The majority of responses indicated that the loss most significantly affected emotional well being and concentration while in graduate school.

The next question in this section inquired about how the American Indian graduate students prevailed in graduate school after experiencing a loss. The responses are listed as follows: came back to work and worked hard, persistence helps me get through these things; determination and strong family network; family and friends were very supportive, faith and spirituality, graduate program was very supportive of me during this time, sought counseling for the first few months after the loss; haven't returned yet; I didn't feel as if I had much of a choice, I couldn't put my studies on hold so I persevered; I flourished; I focused on my project which is ultimately for my family and community; I told myself that they would want me to do my best and that I should continue to work hard even though they are gone from this world; I'm not sure I have yet; It's hard, I'm not sure I did prevail, I'm in the process of leaving my program with the doctorate degree; kept going; life goes on, being pushed by others; my aunt was an educator and I wanted to honor her; my faculty were very understanding and allowed me to turn in work late and gave me extensions on final exams; my family and my professor was very understanding; my instructors and supervisors were very supportive and gave me the time I needed, I was able to turn in my assignments by the start of January which gave me an extra few weeks to finish everything; persistence; positive thoughts and phone calls from family and friends back home; prayer, stubbornness, determination; remembering my purpose of helping my community in the long run; SARC and supportive family/friends; still working on it, trying to use their memory

and love as motivation; successfully; support of family, friends, and professors; support system and professors making accommodations; talking; with difficulty and support from family. Many of the responses included support from family, understanding faculty and program, and commitment to finish.

The next question in this section on tribal ways of knowing asked respondents about cultural responsibilities. The question specified for respondents to only share responsibilities they were comfortable disclosing. The responses included the following: caring for relatives when sick or hospitalized, took a lot of time this semester; conduct ceremonies, keeper of spiritual items and songs; continue the bloodline and heritage; I am comfortable with all cultural responsibilities my tribe requires that I lead and participate in; I do and I don't, I used to do the sweat, help with that, and some with the Sundance but very little; I do community outreach with youth from my tribe regarding sciences, but not specific cultural responsibilities; I do on occasion help Native Americans with addiction problems; I help with my community Sundance ceremony since my stepdad is the Sundance chief; I regularly attend Native American Church when I return home; minimal; no; none; not at the moment; provide transportation; Native American Church doings and ceremonies that I have responsibilities to tend to since I am the eldest grandchild; yes, varies from season to season; yes to my family; yes, must go back to rez at least twice a year; yes for my family and for my community; yes, I participate in fasting ceremonies and Sundance; yes, commitments I have made. The most common responses for this question are ceremonies, responsibilities to family, and community.

The last question in this section asked students how they balance graduate school, family, and cultural responsibilities. The responses were as follows: as best I can; being away from home was difficult but also helpful as my family encouraged me to concentrate on my career, I

always called my family and talked to them about my ups and downs, they are there regardless; culture comes first, school second, family third; drive home often at least once a month; family and cultural activities always come first, then school; family has been my main priority, after the loss of my mother I chose to move home and fulfill responsibilities such as raising my niece, currently pursuing graduate school from long distance and trying to finish out my doctoral program by spring; I always keep my work and personal life separate, I ensure that I keep to a schedule, I take time off when needed to participate in ceremonies; I don't balance well, I kind of swing back and forth like a pendulum; I have let go of some of my community and cultural responsibilities in order to thrive in school, I see it as a temporary tradeoff for the next few years; I just do it; I make plans with these three things and adhere to them, sometimes that requires sacrificing my own personal time; I make sure to check in with home and go to ceremonies when I am able too; I put in extra work and time to take care of my family and cultural needs, often I am extending deadlines and turning down opportunities that my peers are participating in, I apply for as much funding support as I can so I can be there for my family and keep my kids close while I am working; I use a lot of gas; I'm not sure that I am balancing anything; I'm struggling but I keep pushing through, it's probably not the healthiest for me and I should practice self-care more often but I've come too far to give up now; Indian ways always come first; it's a challenge; it's a lot to handle and I have to multi task a lot, mostly prayer and taking time for myself; it's a struggle everyday and I feel like I fall all of the time; it's difficult, but the main difficulty is a lack of understanding and support at my Midwest ivy league school; it's difficult, there is no balance, there is only accepting my own limits and trying my best; it's hard to say, I've had some health issues the past few months and I'm not sure I would be able to stay in graduate school if the program wasn't going out of their way to be very flexible with my

situation; it's not the easiest but it has to be done in order for me to meet all responsibilities, I just try to allot time for each but I also make sure to surround myself with positivity to keep me going during difficult times; it's very difficult because all of my responsibilities are in Oklahoma, I don't make it sometimes when I really need to be there; lots of planning and calendar making; make schedules; miss them, I'll have plenty of time when done with grad school; my family is always first; my family is very supportive and does not demand a lot of me so that I can focus on school, I take my community responsibilities and graduate work in equal measure, keeping in mind that my work is for my community, not myself; my mentor; my thesis is related to Indian Country, otherwise it would be difficult to remember the importance and application of what I'm learning, it's both a blessing and a curse, extra motivation and personal accountability but also suspect to high standards and fear of failure or lacking in quality; not well, I have made sacrifices to be successful in grad school; one day at a time; practicing good time management; prayer, laughing, family support; prioritize based on personal values; prioritizing and planning appropriately; scheduling time management; school was a time consuming investment; still trying to find a balance; the best I can; time management; time management and prioritizing helped a lot; time management, life planner, schedule time for all and map it out; unfortunately I feel that school has to come first, I always try to visit my family but I am not always able to due to money, I feel that my cultural responsibilities are also more difficult to carry out due to deadlines and finances of school; very carefully and sometimes I don't feel terribly successful at it, my family and community is very supportive so they understand when I have limited time or availability in pursuit of my doctorate, as far as cultural responsibilities, although I may not be able to be present on my reservation for ceremonies etc., I am incredibly active here in the local Native community, volunteering for youth programs and

various organizations and events; you just do it, there are some weeks where my family knows I have deadlines and I hardly see them but they understand. Many of the responses indicated finding a balance between graduate school, family, and cultural responsibilities was difficult, some did not feel as though they were balancing these three areas, and others reported planning, time management, and family support.

Self-Awareness and Perception

The self-awareness and perception section of the survey asked questions regarding how American Indian graduate students perceive themselves and how aware they are of themselves. The questions cover physical, social, mental, and spiritual well-being along with reporting experiences during their graduate course, rating the campus climate and school's academics. The survey participants were asked how much of a priority different aspects of physical well-being were to them. The results are below in **Error! Reference source not found..**

Table 3 Priority of Physical Wellbeing for American Indian Graduate Students

	<i>High priority</i>	<i>Above average priority</i>	<i>Average priority</i>	<i>Below average priority</i>	<i>Low priority</i>
Endurance	22.22% (12)	40.74% (22)	27.78% (15)	9.26% (5)	0.00% (0)
Hard work	46.30% (25)	33.33% (18)	14.81% (8)	3.70% (2)	1.85% (1)
Diet	20.37% (11)	22.22% (12)	35.19% (19)	22.22% (12)	0.00% (0)
Exercise	18.52% (10)	20.37% (11)	24.07% (13)	31.48% (17)	5.56% (3)

The students who responded to this question indicated hard work (46.30%) had the highest priority for physical well-being, followed by endurance (40.74%) at above average, diet (35.19%) at average, and exercise (31.48%) at below average and low priority.

The next category in the self-awareness section of the survey addressed social well-being. The areas under social well-being included family, communication with people, communication with colleagues, and leadership. reflects the results below.

Table 4 Priority of Social Wellbeing for American Indian Graduate Students

	<i>High priority</i>	<i>Above average priority</i>	<i>Average priority</i>	<i>Below average priority</i>	<i>Low priority</i>
Family	72.22% (39)	16.67% (9)	9.26% (5)	1.85% (1)	0.00% (0)
Communication with people	31.48% (17)	38.89% (21)	27.78% (15)	1.85% (1)	0.00% (0)
Communication with colleagues	18.52% (10)	35.19% (19)	37.04% (20)	9.26% (5)	0.00% (0)
Leadership	25.93% (14)	40.74% (22)	29.63% (16)	1.85% (1)	1.85% (1)

The students who responded to this question indicated family (72.22%) had the highest priority for social well-being, followed by leadership (40.74%) at above average, communication with colleagues (37.04%) at average, and communication with colleagues (9.26%) at below average.

The next category in the self-awareness section of the survey addressed mental well-being. The areas under mental well-being included intellectual growth, critical thinking, decision-making, and knowledge. The results are in **Error! Reference source not found..**

Table 5 Priority of Mental Wellbeing for American Indian Graduate Students

	<i>High priority</i>	<i>Above average priority</i>	<i>Average priority</i>	<i>Below average priority</i>	<i>Low priority</i>
Intellectual growth	70.37% (38)	24.07% (13)	5.56% (3)	0.00% (0)	0.00% (0)
Critical thinking	72.22% (39)	20.37% (11)	7.41% (4)	0.00% (0)	0.00% (0)
Decision-making	62.96% (34)	27.78% (15)	9.26% (5)	0.00% (0)	0.00% (0)

Knowledge	64.81% (35)	27.78% (15)	7.41% (4)	0.00% (0)	0.00% (0)
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The students who responded to this question indicated critical thinking (72.22%) had the highest priority for mental well-being, followed by decision-making and knowledge (27.78%) at above average, and decision-making (9.26%) at average.

The next category in the self-awareness section of the survey inquired about spiritual well-being. The areas under spiritual well-being involved family, faith, sense of belonging, religious activities, and belief system. The results are in **Error! Reference source not found..**

Table 6 Priority of Spiritual Wellbeing for American Indian Graduate Students

	<i>High priority</i>	<i>Above average priority</i>	<i>Average priority</i>	<i>Below average priority</i>	<i>Low priority</i>
Family	77.78% (42)	12.96% (7)	7.41% (4)	1.85% (1)	0.00% (0)
Faith	39.62% (21)	18.87% (10)	28.30% (15)	7.55% (4)	5.66% (3)
Sense of belonging	48.15% (26)	31.48% (17)	16.67% (9)	1.85% (1)	1.85% (1)
Religious activities	16.67% (9)	22.22% (12)	37.04% (20)	11.11% (6)	12.96% (7)
Belief system	48.15% (26)	27.78% (15)	12.96% (7)	9.26% (5)	1.85% (1)

The students who responded to this question indicated family (77.78%) had the highest priority for mental well-being, followed by a sense of belonging (31.48%) at above average, and religious activities (37.04%) at average, below average, and low priority.

The next section of questions in the self-awareness and perception section inquired about the frequency of certain experiences, campus climate, academics, and degree completion. The experiences students reported happening daily were family duties (48.15%), stress (44.44%), job duties (38.89%), and tired or lack of sleep (35.85%). Those frequent experiences included tired or lack of sleep (47.17%), and stress (40.74%). Occasional experiences included social life

(55.56%), sickness or poor health (50.00%), and depression (44.44%). The rare occasions were difficult living situation (29.63%) and supporting causes; the experiences happening not at all were difficult living situation (25.93%) and campus activities (11.32%).

The next question asked students to reflect on their campus climate. The key areas of campus climate involved friendliness of students, campus diversity, tolerance of diversity, campus safety, and caring students. The responses indicated a majority of the students felt friendliness of students (45.28%), tolerance of diversity (35.19%), campus safety (37.04%), and caring students (55.56%) were average. Campus diversity was rated as below average (33.33%).

School academics asked students to rate challenging courses, values of education, preparation for work, creativity, knowledge of the world, sense of belonging, and ability to work in groups. The survey respondents reported they were satisfied across the board for all of the school academic categories as follows: challenging courses (55.56%), values of education (44.44%), preparation for work (66.67%), creativity (50.00%), knowledge of the world (56.60%), sense of belonging (56.30%), and ability to work in groups (59.26%). The last question asked students to rate how confident they were in completing the degree they were currently working on. The results were rated across a scale of one for very low confidence up to five for very high confidence: level 5 (69.81%), level 4 (18.87%), level 3 (7.55%), level 2 (1.89%), and level 1 (1.89%).

Data Analyses

This section enumerated the findings of the survey data for this study. The purpose of this study was to understand what factors influence the persistence of American Indian graduate students. First, a review of the hypotheses begins this section; the results of the bivariate

correlation analysis are explored next; and the section concludes with the multi-variate regression analysis.

To understand how factors influence American Indian graduate students, the following empirically based research question was addressed:

What factors contribute to American Indian graduate student persistence?

This research question was investigated through three sub-questions:

- a. Do academic success factors relate to American Indian graduate student persistence (Demmert, 2001)?
- b. Do American Indian academic programs relate to American Indian graduate student persistence (Secatero, 2009)?
- c. Do student self-perceptions relate to American Indian graduate student persistence (Secatero, 2009)?

Each hypothesis postulated for each factor was tested individually as well as the combined with other factors. Each hypothesis tested if these factors influence American Indian graduate student persistence.

The hypotheses and null hypotheses for this study were as follows:

H₁. Academic success factors affect American Indian student persistence.

H₀. Academic success factors have no affect on American Indian student persistence.

H₁. American Indian academic programs affect American Indian graduate student persistence.

H₀. American Indian academic programs have no affect on American Indian graduate student persistence.

H₁. Student self-perceptions affect American Indian graduate student persistence.

H₀. Student self-perceptions have no affect on American Indian graduate student

Using the independent variables from each hypothesis and running the multi-variate regression analysis for the dependent variable tested each of the above hypotheses. The full statistical model was tested to examine total affects on persistence of American Indian graduate students.

Bivariate Correlation

The first step in the analysis established a relationship between the variables. The dependent and independent variables were used in a correlation analysis to assess the strength of the relationship between the variables. The variables were recoded into scaled variables by computing a score for each variable by adding the responses to all of the appropriate questions and dividing by the number of questions added together.

A bivariate correlation was conducting with the following variables: persistence, family, financial, academic, faculty, programs, self, physical, social, mental, spiritual, experience, campus, and academics. The bivariate correlation was used to determine direction and strength of relationship. A table with the correlation results is found in **Error! Reference source not found..**

Figure 3 Correlation Coefficient of Dependent and Independent Variables

	Family	Financial	Academic	Faculty	Programs	Self	Physical	Social	Mental	Spiritual	Experience	Campus	Academics
Persistence	0.212	-0.180	-0.161	0.047	0.101	0.167	0.245	.274*	0.201	.300*	0.181	0.102	-0.034
Family	1	.267*	0.223	.374**	.551**	.671**	.820**	.905**	.900**	.801**	.718**	.590**	0.079
Financial		1	.363**	.323**	.339**	.363**	0.192	.264*	.293*	.314*	.259*	0.204	-0.101
Academic			1	0.043	-0.086	0.197	0.001	0.121	0.127	0.230	0.182	-0.053	-0.175
Faculty				1	.777**	.512**	0.234	.351**	.436**	.322**	.384**	.591**	0.168
Programs					1	.690**	.460**	.534**	.590**	.463**	.555**	.883**	0.118
Self						1	.589**	.714**	.739**	.705**	.739**	.680**	-0.128
Physical							1	.812**	.811**	.686**	.553**	.539**	0.168
Social								1	.931**	.861**	.698**	.590**	0.106
Mental									1	.807**	.712**	.632**	0.160
Spiritual										1	.656**	.498**	-0.031
Experience											1	.598**	-0.242
Campus												1	.279*
Academics													1
*, Correlation is significant at the 0.05 level (2-tailed).													
**, Correlation is significant at the 0.01 level (2-tailed).													

The results of the bivariate correlation show weak (Hoy, 2010; Picciano, 2006) and non-significant relationships between the dependent and independent variables. The correlation coefficients for the independent variables was as follows: family (.212), financial (-.180), academic (-.161), faculty (.047), programs (.101), self (.167), physical (.245), social (.274), mental (.201), spiritual (.300*), experience (.181), campus (.102), and academics (-.034). The correlation between persistence and spiritual well-being was the only significant relationship using the .05 alpha level ($p < .05$). Moderate correlations (Hoy, 2010; Picciano, 2006) were found between American Indian programs and self-awareness (.690**), physical well-being (.460**), social well-being (.534**), mental well-being (.590**), spiritual well-being (.463**), and experience (.555**), while campus climate was a robust correlation (.883**). All of the correlations between American Indian programs and the listed independent variables above were statistically significant using the .01 alpha level ($p < .01$). Robust correlations (Hoy, 2010; Picciano, 2006) were found between family and physical well-being (.820**), social well-being (.905**), mental well-being (.900**), spiritual well-being (.801**), and experience (.718**). These correlations were also found to be statistically significant ($p < .01$).

Multivariate Linear Regression

The second step in the analysis for this study involved a multivariate linear regression. This analysis allowed for the exploration in the data to account for the variability of the dependent and independent variables. This study addressed the hypotheses by understanding the amount of variance of American Indian graduate student persistence when the influence of success factors, American Indian programs, and self-perception can be measured.

The analysis was conducted by a regression analysis on the dependent variable, persistence, with each of the variables stated in the hypotheses and then concludes with the full

model with all variables present in the analysis. The initial data screening was maintained for the regression analysis of $n = 63$. An evaluation of linearity was performed using a visual assessment of a correlation matrix and scatter plots. The regression analysis was conducted on the full model via enter method to review the combined and individual effects of the independent variables. The regression coefficients are presented in **Error! Reference source not found.** below.

Table 7 Multiple Regression Analysis of Perceptions of Persistence on Success Factors, American Indian Programs, and Self-Perception

<i>Independent variable</i>	B	<i>Beta</i>	<i>t</i>	<i>p</i>
Family support	.038	.023	.137	.891
Financial support	-.169	.114	-1.478	.147
Academic skills	-.091	-.134	-.693	.493
Faculty support	.077	.121	.479	.635
Amer. Indian programs	.032	.045	.109	.914
Self-perception	-.043	-.042	-.208	.836
Physical well-being	.151	.121	.695	.491
Social well-being	.224	.140	.671	.506
Mental well-being	-.053	-.028	-.158	.875
Spiritual well-being	.234	.226	1.284	.207
Experience	.140	.108	.586	.561
Campus climate	-.101	-.155	-.494	.624
School academics	-.106	-.069	-.402	.690

$R^2 = .218$, $F(13,39) = 65.981$, $p = .620$

Multivariate regression was conducted to determine the percentage of the independent variables (family support [Scaled Family]; financial support [Scaled Financial]; academic skills [Scaled Academic]; faculty support [Scaled Faculty]; American Indian programs [Scaled Programs]; self-perception [Scaled Self]; physical well-being [Scaled Physical]; social well-

being [Scaled Social]; mental well-being [Scaled Mental]; spiritual well-being [Scaled Spiritual]; experience [Scaled Experience]; campus climate [Scaled Campus], and school academics [Scaled Academics]) in predicting American Indian graduate student persistence. The results of the regression indicated the model does not significantly predict American Indian graduate student persistence, $R^2 = .218$, $R^2_{adj} = -.042$, $F(13,39) = 65.981$, $p = .620$. This model accounts for 21.8% of the variance in American Indian graduate student persistence. The results of the analysis failed to reject the null hypothesis in all three accounts.

Summary

This chapter provided the findings for this study. The response rate and sample demographics were reviewed at the beginning of the chapter. Next, the survey results were presented through summaries of graduate status, faculty and department support, financing graduate education, tribal ways of knowing, and self-awareness. The statement of the hypotheses, bivariate correlation, and multiple regression results were also explored. The chapter concludes with a summary.

Chapter Five: Summary, Conclusions, and Recommendations

This chapter provides the discussion of the results for the study. The purpose of the research and the research question are provided at the beginning of the chapter. Next, the research conclusions and implications for administrators, faculty, and students are explained. The following section reviews suggestions for future research. The chapter concludes with a summary.

Purpose of the Research and the Question

The purpose of this quantitative survey study is to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students. The underrepresentation of American Indian students continues to exist at the undergraduate and graduate levels of postsecondary education despite increases of American Indian student enrollment. The study surveyed American Indian students enrolled in graduate programs to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students.

The following empirically based research questions were addressed to identify correlations between academic factors and graduate student persistence, as well as to understand how likely graduate degree completion is based on known academic factors for American Indian students

What factors contribute to American Indian graduate student persistence?

This research question was investigated through the testing of hypotheses postulated for each factor individually as well as the combined factors. Each hypothesis tested if these factors

influence American Indian graduate student persistence. The full statistical model was tested to examine total effects on persistence of American Indian graduate students.

Research Conclusions

The findings from this study are found within the parameters of the previous research on student departure, student retention, cultural protective factors, American Indian student resilience, and American Indian graduate student persistence. The contributions of this study apply to both informing the current body of knowledge for future research along with student retention practitioners. A discussion of the theoretical parallels, followed by the implications, is covered in this section.

The foundations of student departure were explored through Tinto's work over a course of forty years. Tinto (1972) identified many causal factors of student departure: academic difficulty, adjustment, goals, uncertainty, commitments, finances, integration and community membership, incongruence, and isolation. Tinto's model was derived from an adaptation of Durkheim's theory of suicide (as cited in Tinto, 1972); student departure was a form of suicide where it was the inability of students to not adapt to the institution, as well as a lack of support from the institutions (1972).

Tinto further developed the Model of Institutional Departure indicating academic difficulty, failure to identify goals, and failure to integrate into the culture of the institution contributed to students leaving academia. The key assumptions in the Institutional Departure model were "cultural suicide" and adaptation of the institution culture (Tinto, 1993). The respondents in this study, current American Indian graduate students, indicated their culture remained with them through language, family, tribal activities, and considerations of returning to their home community after graduation.

The respondents indicated specific tribal activities they maintained while in graduate school: year round or seasonal ceremonies, powwows, Native American Church, sweat lodge, Sundance, traditions, first kills/berry picking, longhouse ceremony, Chinook Dance, beadwork, dress making, harvest dinners, and fall encampment. The respondents also reported extensive cultural responsibilities: conducting ceremonies, continuity of heritage, community Sundance ceremony, care for sick relatives, community outreach, transportation, and keeper of spiritual items and songs. These tribal activities, cultural responsibilities, language, and priority of family are evidence of cultural continuity. This evidence is a direct argument against Tinto's assumptions of "cultural suicide" and a supportive measure of Tierney's argument (1999) of minority differences of cultural adaptation.

This study provided evidence the American Indian graduate students did not sacrifice their own culture; however no clear indicators existed regarding whether or not the institutions supported and valued their American Indian culture. The responses reinforced Tierney's initial study (1999) and peripheral agreement of confidence, cultural identity, and institutional recognition, through questions about self-confidence in ability to complete degree, various indicators of participation in cultural activities, and fulfilling cultural responsibilities. The responses to questions about campus climate indicated the institutions were average or below average for friendliness of students, campus diversity, tolerance of diversity, campus safety, and caring students. Although some of these measures are not directly about the institution, they do describe campus climates where the institutions have a lack of cultural support for American Indian graduate students.

The cultural protective factors identified by HeavyRunner and Marshall (2003) that contributes to American Indian student resilience (spirituality, family strength, elders, ceremonial

rituals, oral traditions, tribal identity, and support networks) were fully present in this study of American Indian graduate students. These factors were evident through faith, belief system, and sense of belonging being a high spiritual priority; family was a high social and spiritual priority along with high family support; multiple examples of ceremonial traditions and cultural responsibilities; tribal identity through tribe and language, and social networks of on and off campus relationships. These protective factors had strong relationships indicated through robust correlations and statistical significance (family and physical wellbeing (.820**), social wellbeing (.905**), mental wellbeing (.900**), spiritual wellbeing (.801**), and experience (.718**)).

The grounded theory on tribal college student persistence (HeavyRunner-PrettyPaint, 2009) asked two key questions: (a) What is it like for tribal college students to manage the integration of academic, social, and cultural responsibilities? and (b) How do community and college memberships influence educational persistence for tribal college students? In this study, similar to HeavyRunner-Pretty Paint's (2009) study, the students were asked about how they balance graduate school, family, and cultural responsibilities. The most common responses indicated family; graduate school was for their communities; prioritizing culture and school first; prayer and self-care; and a supportive family and community. These responses addressed why graduate students need to balance these responsibilities and how they balanced these responsibilities. One respondent from this study stated, "My family is very supportive, and does not demand a lot of me so that I can focus on school. I take my community responsibilities and graduate work in equal measure, keeping in mind that my work is for my community, not for myself."

The survey responses also addressed the second question from the grounded theory on tribal college student persistence (HeavyRunner-PrettyPaint, 2009). The American Indian

graduate students in this study reported that balance was not easy, very difficult, challenging, and constantly feeling like they were failing. The student responses also indicated they just kept doing it, sacrifices, one day at a time, understanding it is a blessing and a curse, swinging back and forth like a pendulum, and still trying to find a balance. These responses paralleled HeavyRunner-PrettyPaint's (2009) theory as the most helpful to students not giving up.

The responses to this study also supported the model of Secatero (2009) American Indian graduate student success. The four components of the model - physical, mental, emotional, and spiritual well-being - were directly used to understand self-perception of American Indian graduate students in the Secatero study. These aforementioned specific measures [physical, mental, emotional, spiritual wellbeing] showed a weak relationship with persistence as it was measured for this study; however, when correlations were analyzed, these four measures had significant, robust relationships with family (family and physical wellbeing (.820**), social wellbeing (.905**), mental wellbeing (.900**), spiritual wellbeing (.801**)).

Overall, this study had strong, practical significance for understanding the experience of American Indian graduate students. The task of testing the hypothesis did not result in any significant differences; thus, based on this sample, the results failed to reject the null hypotheses of the following: (a) academic factors, (b) American Indian programs, and (c) self-perception affecting American Indian graduate student persistence. Despite the lack of statistical evidence, the original research question, what factors contribute to American Indian graduate student persistence, was conclusive through the full model accounting for approximately 21% variance of persistence.

One of the goals of this study was to contribute to the body of knowledge around American Indian student persistence. This study contributed in three, notable ways: (a)

confirming early studies of student persistence did not account for cultural continuity and unique experiences of minority students; (b) providing further evidence of the importance of culture, relationships, and a responsibility to community as influential factors of American Indian student persistence; and (c) generating the need for further investigation into persistence for American Indian graduate student persistence. This study provided further evidence and knowledge around the unique experience of American Indian graduate students.

Implications

The implications from this study serve two key purposes: implications for institutions serving American Indian Graduate students, and implications for future research. These purposes do have areas of overlap along with unique recommendations based on the results of this study. The research conclusions informed the recommendations for each of these areas.

Implications for Institutions

Academic institutions need to specifically address the shortcomings in support and promotion of American Indian culture. This support and promotion needs to include avenues and opportunities to help American Indian students feel the acceptance of diversity, tolerance of diversity, and every opportunity other non-Native students have to feel safe within the bounds of the institution. Historically, efforts and funds have been allocated for these purposes; however, the change can only come from the American Indian students themselves.

The disconnect happens when any amount of directed effort for American Indian students is prompted by the institution and an assumption of this being a fix to the problems should happen. The key to understand this disconnect is the *perspective of the institution*, and not that of American Indian students themselves. Concerted efforts to improve campus climate for

American Indian students need to include the American Indian students throughout the entire process.

The development of strategic plans with American Indian students involved in the planning process will ensure to capture the input of the American Indian students, from the perspective of American Indian students, and hopefully, result in efforts aligning with what works for American Indian students. The skills of the institution and the knowledge from American Indian students can work together in order to promote and support these students in an appropriate way.

Implications for Future Research

The results of this study were fruitful for future research. As the body of knowledge on American Indian student persistence continues to grow, three areas of research need direct attention in order to understand this experience, measure this experience, and transfer the knowledge of this experience of American Indian students. The three areas are (a) measuring persistence as a process and not a defined cross section of time, (b) further exploring indigenous theories and models of persistence, and (c) measuring these concepts through an American Indian lens and worldview.

The results of this study indicated the measure of persistence in this case had a weak relationship with the academic and self-awareness factors. Recommendations based on this result for future research would be to do further investigation on how to define American Indian persistence and how to operationalize this into a measureable concept. Persistence for American Indian students is an ongoing activity and not something that happens at the end when something is complete. Research into how to measure this process would contribute to understanding this process for American Indian graduate students.

The Indigenous theories and models need further investigation to develop accurate measures of subjective concepts like spirituality, culture, sense of belonging, and identity. Further, these concepts need to be defined from an American Indian perspective in order to accurately capture this from their worldview. The saying “you cannot understand the day in the life of a man until you walk a day in his shoes” has value in this instance. In order to understand the experience of American Indian students, one must first understand what life is like from their perspective.

Research needs to be conducted through the lenses of honoring and recognizing the uniqueness of all American Indian individuals and tribes and not through the western lenses. The challenge in research is to find these parallels in concept and language and then perform the translation without losing the root of the meaning. The concepts in this study (persistence, success factors, support, and self-awareness) already have a basis in the culture of American Indian students. These concepts are defined differently, understood differently, and need to be explained from the American Indian perspective.

Summary

The opportunity for this study came from a history of researchers who first wanted to understand why students left college, only to change and shift to wanting to understand why students stayed in college. American Indian students naturally view the world as a place to stay and be grateful for. Western education was not part of this world initially, and when it did, it was a place to eradicate the American Indian identity down to the very core of their being.

Over time, a shift happened where more and more American Indian students were persisting through college and earning degrees. The initial pipeline took time to establish despite the continued underrepresentation trend. More and more American Indian students were earning

undergraduate degrees, which began the process of earning graduate degrees. This growth was always overshadowed by the large underrepresentation of American Indian students in higher education despite efforts to change this reality.

American Indian graduates were able to explain pieces of the underrepresentation from their perspective. The goal shifted to understand why students persist and how to help more American Indian students persist through academia and earn graduate degrees. The chapters in this study have brought forth foundational research of indigenous theories and models to understand what motivates American Indian graduate students to persevere to stay in college and complete their degrees.

This study has contributed to research and prompted further research in the future, especially research conducted through an American Indian perspective. This study will help the growth of research in this area and ultimately help many American Indian students in pursuit of undergraduate and graduate degrees. Sometimes simplicity is the easiest way to understand the most complex ideas. In this instance of American Indian graduate Students, “Persistence helps me get through these things.”

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Appendix A: Permission to use Survey Instrument

Aislinn Rioux

From: aislinn.rioux@gmail.com
Sent: Tuesday, November 22, 2016 11:23 AM
To: Aislinn Rioux
Subject: Fwd: Request for use of dissertation survey

Sent from my iPhone

Begin forwarded message:

From: Shawn Secatero <ssecater@unm.edu>
Date: September 7, 2016 at 7:30:00 AM PDT
To: Aislinn Rioux <aislinn.rioux@gmail.com>
Subject: Re: Request for use of dissertation survey

Yaaateeh Aislinn,
It would be great honor to share my survey instrument in your dissertation. I wish you all the blessings in your journey. Let me know if you need additional information. Ahehee la'.

Shawn L. Secatero, Ph.D.

University of New Mexico

Assistant Professor, Educational Leadership Program

2500 Campus Blvd. NE

Hokona-Zuni Hall Room 388

Albuquerque, New Mexico 87131

Email: ssecater@unm.edu

Phone: (505) 277-6018

Fax: (505) 277-5553

From: Aislinn Rioux <aislinn.rioux@gmail.com>
Sent: Wednesday, September 7, 2016 6:55:36 AM
To: Shawn Secatero
Subject: Request for use of dissertation survey

Appendix B: Letter of Support 1



November 19, 2016

Aislinn HeavyRunner-Rioux: Support Letter for Dissertation

Dear Dissertation Committee:

This letter of support is for Aislinn HeavyRunner-Rioux, who is completing her doctorate in the Department of Education at the University of Montana. I enthusiastically support her work and am prepared to disseminate the survey for her dissertation, A Quantitative Study on the Influence of Persistent Factors on American Indian Graduate Students.

If you have any questions, please contact me at luana@uw.edu.

Respectfully,



Luana Ross, Ph.D.
Co-Director of Native Voices and Professor of Gender, Women, and Sexuality Studies

Appendix C: Letter of Support 2



November 22, 2016

Dear Aislinn:

Congratulations on the progression of your research journey. Thank you very much for the sacrifices and work you have put into this very important topic. It has the potential to have significant positive impacts for our native people now and into the future.

I am writing to commit to disseminate the link to your survey to my personal and professional contacts. I have worked in the field of Indian education for fifteen years, on two different Indian reservations, and have collaborated with several Tribal Colleges and Universities. I have been involved with the American Indian Higher Education Consortium, the American Indian Science and Engineering Society, and the Montana Indian Education Association. As a Ford Fellow, I also have access to their listserv of several thousand diverse scholars. As a Sloan Scholar, I also have a network of colleague across the United States.

In my current position, I also have collaborations with non-tribal institutions serving native students in the Pacific Northwest. I have a network of colleagues across the University of Montana campus who serve native students. I am part of a listserv through the American Indian Support and Development Council.

Lastly, my husband is the Department Head of the Confederated Salish and Kootenai Tribes. I will be able to forward your survey link to him to share with his networks.

I look forward to helping to support your important work in any ways I can. Please let me know if there are additional ways I can help.

Sincerely, your friend and colleague,

A handwritten signature in blue ink that reads "Ruth A. Swaney".

Ruth A. Swaney
Native American Natural Resource Program Coordinator

COLLEGE OF
FORESTRY & CONSERVATION
UNIVERSITY OF MONTANA



**NATIVE AMERICAN
NATURAL RESOURCE PROGRAM**

32 Campus Dr., FOR 109A | Missoula, Montana 59812 | 406.243.5561 | www.cfc.umt.edu/resources/nanrp

Appendix D: Letter of Support 3

Mariah Tso
3610 Banbury Dr.
Apt. 6-F, Mailbox 82
Riverside, CA 92505

November 21, 2016

SUBJECT: Letter of Support for Aislinn HeavyRunner-Rioux Dissertation

Dear Dissertation Committee,

I am writing to show my support for Aislinn HeavyRunner-Rioux, who is completing her doctorate in the Department of Education at the University of Montana. I believe her dissertation, *A Quantitative Study on the Influence of Persistent Factors on American Indian Graduate Students*, will greatly benefit my community and am writing to express my full support and commitment to disseminating the project survey.

Currently, I am a Diné student at the University of Redlands pursuing a Master of Science degree in Geographic Information Systems. I am prepared to reach out to fellow Native students throughout the Southern California region through my personal and professional networks to circulate the survey. I eagerly anticipate assisting with this important and meaningful research.

If you have any questions, please contact me at mariah_tso@redlands.edu

Sincerely,



Mariah Tso | M.S. Candidate, 2016

University of Redlands | Geographic Information Systems (GIS)

Mobile: (509) 389-3492

mariah_tso@redlands.edu

Appendix E: Letter of Support 4

November 30, 2016

RE: Letter of Commitment for Aislinn HeavyRunner-Rioux Dissertation

Dear Dissertation Committee Members,

I am honored to write this letter for Aislinn HeavyRunner-Rioux in support of her Doctor of Education (Ed.D) in Educational Leadership. Aislinn is a Blackfeet tribal member and a Doctoral Candidate in the Education Leadership Program at the University of Montana. Aislinn's dissertation *A Quantitative Study on the Influence of Persistent Factors on American Indian Graduate Students* will be an important and relative study in Native American Communities. Native American Communities have a cultural knowledge specific to their tribe and Aislinn being of Blackfeet the people and raised with cultural knowledge has the cultural insight to make her study more culturally inclusive.

Currently, I am Academic Advisor in the Native American Studies Department at the University of Montana. I can assist Aislinn in reaching out to the Native American Studies Department, American Indian Student Services and the American Indian Support Development Committee list serves, when needed.

If you have any questions or concerns please contact me at michelle.guzman@mso.umt.edu or phone at (406) 243-5834.

Sincerely,

Michelle Guzman

Michelle Guzman
University of Montana NAS Academic Advisor
Native American Studies Department
Payne Family Native American Center
406 243-5834
Michelle.guzman@mso.umt.edu

Appendix F: Letter of Support 5

Gmail - Commitment to distribute survey

4/3/17, 5:59 PM



Aislinn Rioux <aislinn.rioux@gmail.com>

Commitment to distribute survey

Charette, Reno <rcharette@msubillings.edu>
To: "Aislinn.rioux@gmail.com" <Aislinn.rioux@gmail.com>

Tue, Nov 29, 2016 at 9:37 PM

Greetings,

I'd be delighted to assist Aislinn Rioux in the distribution of her survey. I will send her survey to the targeted audience among my Facebook friends list of nearly 2000 people, the 20 American Indian professionals in our local Smoke Signals group, my HERS contacts that include 60 women who work in higher education across the nation, and my colleagues in Native American Studies in the MUS and Montana's tribal colleges.

I'm eager to be of assistance in helping Ms. Rioux succeed in her research endeavors and graduate. Her exceptional skill sets are desperately needed in Indian Country. It's my privilege and honor to walk with her in her academic journey.

Thank you for the opportunity to be of assistance.

Reno Charette
Director
American Indian Outreach
Montana State University Billings
1500 University Drive
Billings, MT 59101
[406-657-2144](tel:406-657-2144)
Rcharette@msubillings.edu

Appendix G: IRB Approval Letter

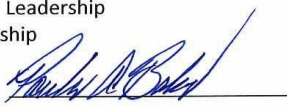


INSTITUTIONAL REVIEW BOARD *for the Protection of Human Subjects in Research*

FWA 00000078
Research & Creative Scholarship
Interdisciplinary Science Building 104
University of Montana
Missoula, MT 59812
Phone 406-243-6672

Date: January 31, 2017

To: Aislinn HeavyRunner-Rioux, Educational Leadership
Dr. Frances O'Reilly, Educational Leadership

From: Paula A. Baker, IRB Chair and Manager 

RE: IRB #23-17: "A Quantitative Study on the Influence of Persistence Factors on American Indian Graduate Students"

Your IRB proposal cited above has been **APPROVED** under the **Exempt** category of review by the Institutional Review Board in accordance with the Code of Federal Regulations, Part 46, section 101. The specific paragraph which applies to your research is:

X (b)(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

University of Montana IRB policy does not require you to file an annual Continuation Report for exempt studies, as there is no expiration date on the approval. However, you are required to notify the IRB of the following:

Amendments: Any changes to the originally-approved protocol must be reviewed and approved by the IRB **before** being made (unless extremely minor). Requests must be submitted using [Form RA-110](#).

Unanticipated or Adverse Events: You are required to timely notify the IRB if any unanticipated or adverse events occur during the study, if you experience an increased risk to the participants, or if you have participants withdraw from the study or register complaints about the study. Use [Form RA-111](#).

Please contact the IRB office with any questions at (406) 243-6672 or email irb@umontana.edu.



THE UNIVERSITY OF MONTANA-MISSOULA
Institutional Review Board (IRB)
for the Protection of Human Subjects in Research
APPLICATION FOR IRB REVIEW

IRB Protocol No.:

23-17

At the University of Montana (UM), the Institutional Review Board (IRB) is the institutional review body responsible for oversight of all research activities involving human subjects as outlined in the U.S. Department of Health and Human Services' Office of Human Research Protection and the National Institutes of Health, Inclusion of Children Policy Implementation.

Instructions: A separate application must be submitted for each project. IRB proposals are approved for no longer than one year and must be continued annually (unless Exempt). Faculty and students may email the completed form as a Word document to IRB@umontana.edu, or submit a hardcopy (no staples) to the IRB office in the Interdisciplinary Sciences Building, room 104. Student applications must be accompanied by email authorization by the supervising faculty member or a signed hard copy. *All fields must be completed. If an item does not apply to this project, write in: N/A.* Questions? Call the IRB office at 243-6672.

1. Administrative Information

Project Title: A QUANTITATIVE STUDY ON THE INFLUENCE OF PERSISTENCE FACTORS ON AMERICAN INDIAN GRADUATE STUDENTS	
Principal Investigator: Aislinn HeavyRunner-Rioux	UM Position: Graduate Student
Department: Educational Leadership	Office location: N/A
Work Phone: N/A	Cell Phone: 406-493-2000

2. Human Subjects Protection Training *(All researchers, including faculty supervisors for student projects, must have completed a self-study course on protection of human research subjects within the last three years and be able to supply the "Certificate(s) of Completion" upon request. If you need to add rows for more people, use the Additional Researchers Addendum.)*

All Research Team Members (list yourself first)	PI	CO-PI	Faculty Supervisor	Research Assistant	DATE COMPLETED IRB-approved Course mm/dd/yyyy
Name: Aislinn HeavyRunner-Rioux Email: aislinn.heavyrunner-@mso.umt.edu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01/22/2017 ✓
Name: Dr. Frances O'Reilly Email: frances.oreilly@umontana.edu	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5/13/2014 ✓
Name: Email:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Name: Email:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

3. Project Funding *(If federally funded, you must submit a copy of the abstract or Statement of Work.)*

Is grant application currently under review at a grant funding agency? <input type="checkbox"/> Yes (If yes, cite sponsor on ICF if applicable) <input checked="" type="checkbox"/> No		Has grant proposal received approval and funding? <input type="checkbox"/> Yes (If yes, cite sponsor on ICF if applicable) <input type="checkbox"/> No	
Agency	Grant No.	e-Prop #	PUR

For UM-IRB Use Only

IRB Determination:

- ☒ Not Human Subjects Research
☒ Approved by Exempt Review, Category # 2 (see memo)
☐ Approved by Expedited Review, Category # _____ (see Note to PI)
☐ Full IRB Determination
☐ Approved (see Note to PI)
☐ Conditional Approval (see memo) - IRB Chair Signature/Date: _____
☐ Conditions Met (see Note to PI)
☐ Resubmit Proposal (see memo)
☐ Disapproved (see memo)

Note to PI: Non-exempt studies are approved for one year only. Use any attached IRB-approved forms (signed/dated) as "masters" when preparing copies. If continuing beyond the expiration date, a continuation report must be submitted. Notify the IRB if any significant changes or unanticipated events occur. When the study is completed, a closure report must be submitted. Failure to follow these directions constitutes non-compliance with UM policy.

Risk Level: MinimalFinal Approval by IRB Chair/Manager: [Signature] Date: 1/31/2017 Expires: N/A

Appendix H: Recruitment Flyer

American Indian Graduate Student Survey

What is graduate school
like for American Indian
students?


Make your 15 minute
contribution to this
national study at:


https://www.surveymonkey.com/r/AI_GRAD_STUDENT_SURVEY

SURVEY CLOSSES FEBRUARY 28, 2017

For further information, contact:
Aislinn HeavyRunner-Rioux
(406) 493-2000
aislinn1.heavyrunner-rioux@umconnect.umt.edu

The University of Montana IRB	
Expiration Date	None
Date Approved	1-31-2017
Chair/Admin	Aislinn HeavyRunner-Rioux





Appendix I: Participant Informed Consent

Aislinn Rioux, M.I.S.

University of Montana Doctoral Candidate

Educational Leadership

Telephone: 406-493-2000

Email: aislinn.rioux@gmail.com

CONSENT TO PARTICIPATE IN RESEARCH

INTRODUCTION

My name is Aislinn Rioux and I am a doctoral candidate from the University of Montana. I am honored to invite you to participate in a research study that will focus on your personal experience related to your graduate school journey. I am conducting an online survey concerning my dissertation topic entitled, “A Quantitative Study on The Influence of Persistence Factors on American Indian Graduate Students”. I have limited my inquiry to American Indian graduate and professional students.

I am targeting 100 completed surveys from American Indian graduate students from across the country to participate in this study. My participant selection process has specific requirements and will proceed as follows:

- 1) Participants must be American Indian graduate students who are completing their master’s or doctoral program in their respective fields of study.
- 2) Participants must be willing to share their personal experiences on graduate school success and must devote time to complete the online survey, which takes about 20 minutes.

PURPOSE OF STUDY

My research will focus on understanding what academic, success, and self-awareness factors have contributed to your continuation towards earning a graduate degree. Furthermore, I would like to explore the many reasons for your persistence and your success in attaining your graduate degree.

PROCEDURES AND ACTIVITIES

My methodology involves the following procedures:

- 1) Participants will complete and sign this consent form online, prior to completing the survey.
- 2) Participants will complete an online survey consisting of 54 questions about their graduate school experiences.

POTENTIAL RISKS AND DISCOMFORTS

There are no potential risks, discomforts, or inconveniences involved. Your participation is voluntary and you are free to decline to answer any survey questions that makes you uncomfortable without penalty.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR SOCIETY

Your responses will inform programs who serve American Indian students at academic institutions. Your participation is strictly voluntary and no compensation will be provided. Your anticipated reward is in helping future American Indian graduate students pursue advanced degrees.

CONFIDENTIALITY

Any information obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. All information will be stored in my own personal computer equipped with my own password. This computer is in a locked room when I am not present. I will also keep a hard copy

of survey responses in a personal locked filing cabinet at home. Information will only be shared with my dissertation committee, five faculty members at the University of Montana. No identifying information will be made available in discussions or drafts of this dissertation.

PARTICIPATION AND WITHDRAWAL

You can choose whether to participate in this study or not. If you volunteer to participate, you may withdraw at any time without penalty or loss of benefit to which you might otherwise be entitled. You may also refuse to answer any question you do not want to answer and still remain in the study.

IDENTIFICATION OF INVESTIGATORS AND REVIEW BOARD

If you have any questions or concerns about the research, please feel free to contact:

Appendix J: Survey

INTRODUCTION

Ok! (Hello)! Thank you for taking the time to participate in this study on persistence factors for American Indian graduate students. The intent of this study is to understand which persistence factors contribute the most to degree completion for American Indian graduate students. The survey includes 61 questions on status, graduate school academics, faculty/departmental support, finances, tribal identity and culture, self awareness and perception, and concludes with demographics. The survey should take about 15 minutes to complete; please answer all questions to the best of your ability. Your participation is voluntary and the information you provide will help to understand the American Indian graduate student experience. Thank you again for your participation.

INFORMED CONSENT

Title: A Quantitative study on the influence of persistence factors on american indian graduate students

Principle Investigator:

Aislinn HeavyRunner-Rioux, M.I.S., (406-493-2000), aislinn1.heavyrunner-rioux@umconnect.umt.edu

Faculty Supervisor:

Frances O'Reilly, EdD, Phyllis J Washington College of Education and Human Sciences 204, (406) 243-5608, francee.o'reilly@mso.umt.edu

Purpose:

The purpose of this study is to understand how persistence factors contribute to degree completion for American Indian graduate students.

Procedures:

If you agree to take this research survey, you will be given several questions about your status, graduate school academics, the support you receive on campus, your tribal and cultural identity, and your self-awareness as a graduate student. Additionally, you will asked questions about your age, marital status, gender, and GPA. Some of the questions are personal and may cause mild discomfort to answer. To participate in this study, you must be over 18 years of age, a graduate student, and American Indian. The survey will take approximately 15 minutes to complete and your participation is voluntary. You may choose to exit the survey at any point without consequence.

Risks/Discomforts:

Mild discomfort may occur from answering questions about your experience. At the end of the survey you will be provided with a list of resources to help you in the event of this.

Benefits:

There is no direct benefit for your participation. The information you provide will help contribute and further the knowledge on the experience of American Indian graduate students who pursue graduate degrees.

Confidentiality:

Any identifying information, including the IP address, will not be collected in this survey. The online instrument will be secure through the site providing Secure Sockets layer system and the encryption of data files.

Voluntary Participation/Withdrawal:

Your participation is voluntary and you are not required to answer any question on this survey. At any time, you may choose to not participate or discontinue your participation without any penalty or loss of benefits.

Questions:

For questions about this study at anytime, please contact:

Aislinn HeavyRunner-Rioux, M.I.S.
(406) 493-2000
aislinn1.heavyrunner-rioux@umconnect.umt.edu

Or

Frances O'Reilly, EdD
PJWCOEHS 204
(406) 243-5806
francee.o'reilly@mso.umt.edu

Any questions you may have regarding your rights as a research participant, please contact the Chair of the Institutional Review Board (IRB) through the University of Montana Research Office at (406) 243-6670.

* 1. To continue please select one of the options below:

- ☐ I have read the above description of this research study. I have been informed of the risks and benefits and should I have any questions, I can call the PI at (406) 493-2000. I voluntarily agree to participate in this study. I understand I may print a copy of this consent or request a copy by contacting the PI.
- ☐ I did not read or I do not understand the description of this research study and/or do not wish to participate or continue participating.

QUALIFICATION

* 2. Are you a graduate student?

☐ Yes

☐ No

QUALIFICATION

* 3. Are you American Indian?

☐ Yes

☐ No

PART ONE: GRADUATE STATUS

4. Are you registered for courses next semester?

- ☐ Yes
☐ No, but will be registering
☐ No, on a leave of absence with full intentions of enrolling
☐ No, will be graduating this semester
☐ No

5. How many consecutive fall and spring semesters (or quarters) have you been enrolled as a graduate student? Summer sessions and breaks between terms are not included.

6. What is your field of study?

7. Please rate the following factors in choosing your major:

	High priority	Above average priority	Average priority	Below average priority	Low priority
High paying job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual curiosity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fulfilling career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prestige	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent or community desires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Please list your cumulative grade point average in accordance with your degree level:

	Below 2.0 Cum GPA	2.0 - 2.5 Cum GPA	2.6 - 3.0 Cum GPA	3.1 - 3.5 Cum GPA	3.6 - 4.0 Cum GPA	N/A
Associates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bachelors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Masters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doctorate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

9. Have you ever taken a term (semester or quarter) or more off in your pursuit of earning a graduate degree?

☐ Yes

☐ No

10. If yes, how many times have you stopped and started again? Enter a number.

11. In total, how many terms (semester or quarters) have you taken off? This will be the number of terms for each time you stopped added up for a total number.

12. What degree will you attain upon graduation?

☐ Master

☐ Doctorate

☐ Professional

13. When is your expected graduation date (list month and year, as MM/YYYY)?

14. Has anyone in your family earned a graduate degree?

☐ Yes

☐ No

PART TWO: FACULTY AND DEPARTMENT SUPPORT, GRADUATE ACADEMICS

15. Do you have a mentor to help advise you with graduate school?

☐ Yes

☐ No

16. If yes, relationship with mentor (e.g. major advisor, program coordinator, research collaborator)

17. Please rate how helpful these student service providers are to you:

	Extremely helpful	Above Average	Average	Below Average	Not helpful at all	N/A
Academic Advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Department Chair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Department Coordinator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial Aid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dean of Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Support Services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
American Indian Programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graduate Committee Chair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graduate Committee Members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graduate School Enrollment Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. How often do you meet with your advisor each term?

- ☐ Twice per week
- ☐ Once per week
- ☐ Twice per month
- ☐ Once per month
- ☐ Once per term
- ☐ Other (please specify)

19. What types of academic resources do you utilize in graduate school?

- ☐ Graduate School Workshops
- ☐ Computer On-Line Resources
- ☐ Tutoring
- ☐ Off campus Centers
- ☐ Other (please specify)

20. How many graduate credit hours (on average) do you enroll during each academic year:

	Below 6 hours	7 - 11 Hours	12 - 16 Hours	17 - 21 Hours	Over 21 Hours
First year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Second year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Third year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fourth year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fifth year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. How many American Indians are enrolled in your graduate program?

- ☐ Less than 10
- ☐ 11-20
- ☐ 21-30
- ☐ Over 30
- ☐ Don't Know

PART THREE: FINANCING YOUR GRADUATE EDUCATION

22. Do you receive financial aid for graduate school?

- ☐ Yes
☐ No

23. Have you take out any student loans during your graduate career? If so, check all that apply:

- ☐ Federal Student Loans
☐ State Student Loans
☐ Private Loan
☐ AIGC Loan for service
☐ Other (please specify)

24. Have you received a research or teaching assistanship or are currently serving as a research or teaching assistant?

- ☐ Yes
☐ No
☐ Don't Know
☐ N/A

25. Have you received any scholarships to help finance your graduate education?

- ☐ Yes
☐ No
☐ N/A

26. Have you received any fellowships to help finance your graduate education?

- ☐ Yes
☐ No

27. Have you participated in work study programs as part of your graduate education?

☐ Yes

☐ No

28. Have you receive any tribal aid or American Indian Graduate Center Fellowships to help fund your graduate education?

☐ Yes

☐ No

29. If yes, please specify:

30. Have you been employed during your graduate school experience?

☐ Yes

☐ No

31. How many hours a week did you work? Please choose an answer for each year you have been enrolled in graduate school.

	Less than 10 Hrs.	11-20 Hrs. weekly	21-30 Hrs. weekly	31-40 Hrs. weekly	41 or more Hrs.	N/A
1st Year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2nd Year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3rd Year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4th Year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5th Year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

PART FOUR: TRIBAL WAYS OF KNOWING

32. Tribal Affiliation:

33. Where were you raised?

- ☐ Reservation
- ☐ Off reservation
- ☐ Urban area
- ☐ Multiples areas
- ☐ Other (please specify)

34. Do you plan on returning to your home community for work or some type of project after graduate school?

- ☐ Yes
- ☐ No
- ☐ Unsure
- ☐ I don't know

35. What is your tribal language(s)?

36. Please rate the fluency of your tribal language:

	Non fluent	Understand it but don't speak it	Semi fluent	Can carry on conversation	Fluent in native tongue	N/A
1st tribal language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other language	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

37. Do you participate in any tribal events?

- ☐ Yes
- ☐ No

38. If so, specify what events you participate in:

39. Is your family supportive of your graduate education?

- ☐ Yes
☐ No
☐ N/A

40. Is your community supportive of your graduate education?

- ☐ Yes
☐ No
☐ N/A

41. Are you responsible for taking care of other individuals while in graduate school?

- ☐ Yes
☐ No

42. If yes, what is their relationship to you?

43. Have you experienced the loss of a loved one during your graduate education?

- ☐ Yes
☐ No
☐ N/A

44. If yes, how did the loss affect your graduate education?

45. How did you prevail in your graduate education after the experience of losing a loved one?

46. Do you have cultural responsibilities? If yes, please list those you are comfortable sharing in the text box below.

47. How do you balance graduate school, family, and cultural responsibilities?

PART FIVE: SELF-AWARENESS AND PERCEPTION

48. In terms of physical well being, please rate how high of a priority the following are to you:

	High priority	Above average priority	Average priority	Below average priority	Low priority
Endurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hard work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

49. In terms of social well being, please rate how high of a priority the following are to you:

	High Priority	Above average priority	Average priority	Below average priority	Low priority
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication with people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication w/ colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

50. In terms of mental well being, please rate how high of a priority the following are to you:

	High priority	Above average priority	Average priority	Below average priority	Low priority
Intellectual growth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

51. In terms of spiritual well being, please rate how high of a priority the following are to you:

	High Priority	Above average priority	Average priority	Below average priority	Low priority
Family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faith	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of belonging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religious activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Belief system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

52. When reflecting on your graduate career, please rate all of the following experiences that may apply to you:

	Not at all	Rarely	Occasionally	Frequently	Daily	N/A
Depression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campus activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting causes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Family duties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tired or lack of sleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sickness or poor health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficult living situation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job duties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

53. When reflecting on your graduate career, please rate your campus climate:

	Excellent	Above average	Average	Below average	Poor	No Answer
Friendliness of students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campus diversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tolerance of diversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Campus safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caring students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

54. When reflecting on your school's academics, please rate yourself in the following areas:

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied	No Answer
Challenging courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Values of education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preparation for work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of world	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of belonging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to work in groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

55. How confident are you in completing the degree you are currently working on? On a scale of 1 to 5, one being very low confidence and five being very high confidence.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

PART SIX: DEMOGRAPHICS

56. Age:

57. Gender

☐ Male

☐ Female

☐ Other (please specify)

58. Marital Status (Check One):

☐ Single

☐ Married

☐ Divorced

☐ Widowed

☐ Other (please specify)

59. Do you have children?

☐ Yes

☐ No

60. If so, how many?

☐ One

☐ Two

☐ Three

☐ Four

☐ Five or More

61. Are you employed?

☐ Yes

☐ No

62. What is your highest level of completed education?

☐ Associates

☐ Bachelors

☐ Masters

☐ Doctorate

☐ Professional

☐ Post Graduate

☐ Other (please specify)

This concludes the survey on the influence of persistence factors on American Indian graduate students. I personally would like to thank you for sharing your story and express my gratitude. The information you provided is crucial to understanding the unique experience of American Indian students especially in graduate school. In my own journey, I know I have not done this alone and now the blessings of those who have helped move this story forward has grown because of your strength to share your experience. If you would like further information including the results of this story, please reach out to me. In my language, Blackfeet, we help each other to keep moving forward, "Ikaakimaat", try hard. So for you, I end this survey by encouraging you to keep going, be strong, you are not alone and you will be successful. Aho!

Appendix K

American Indian Graduate Student Survey Code Book

Q1_Consent

Standard Attribute	Type	Numeric
	Measurement	Nominal

Q2_GradStudent

Standard Attributes	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes

Q3_AmerInd

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes

Q4_RegCourses

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	No
	2	No, will be graduating this semester
	3	No, on a leave of absence with full intentions of enrolling
	4	No, but will be registering
	5	Yes

Q5_ConsecSemesters

Standard Attribute	Type	Numeric
	Measurement	Scale

Q6_FieldofStudy

Standard Attribute	Type	String
	Measurement	Nominal

Q7a_HighPayingJob

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q7b_IntCuriosity

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q7c_FulCareer		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q7d_IntrntlOpps		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q7e_Prestige		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q7f_ParentCommDesires

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q8a_GPA_Associates

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8b_GPA_Bachelors

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8c_GPA_Masters

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8d_GPA_Doctorate

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8e_GPA_Professional

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8f_GPA_Other		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 2.0 Cum GPA
	2	2.0 - 2.5 Cum GPA
	3	2.6 - 3.0 Cum GPA
	4	3.1 - 3.5 Cum GPA
	5	3.6 - 4.0 Cum GPA
	9	N/A

Q8g_Other_Specify		
Standard Attribute	Type	String
	Measurement	Nominal

Q9_Term_Off		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes

Q10_Number_Stop_Start		
Standard Attribute	Type	String
	Measurement	Ordinal

Q11_Total_Terms_Off		
Standard Attribute	Type	String
	Measurement	Ordinal

Q12_Degree_Attain

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	1	Master
	2	Doctorate
	3	Professional

Q13_Expctd_Grad_Date

Standard Attribute	Type	Numeric
	Measurement	Nominal

Q14_Family_Grad_Degree

Standard Attributes	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q15_Mentor

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q16_Mentor_Relationship		
Standard Attribute	Type	String
	Measurement	Nominal

Q17a_Help_Acad_Advisor		
Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17b_Help_Dept_Chair		
Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17c_Help_Dept_Coor

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17d_Help_Financial_Aid

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17e_Help_Dean

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17f_Help_SSS

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17g_Help_AIProgram

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17h_Help_Comm_Chair

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17i_Help_Comm_Members

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q17j_Help_Enroll_Office

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not helpful at all
	1	Below Average
	2	Average
	3	Above average
	4	Extremely Helpful
	9	N/A

Q18_#meet_Advisor

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	0	Other
	1	Once per term
	2	Once per month
	3	Twice per month
	4	Once per week
	5	Twice per week

Q18a_#meet_Other

Standard Attribute	Type	String
	Measurement	Nominal

Q19a_Acdm_Resrc_GSWorkshop

Standard Attribute	Type	String
	Measurement	Nominal

Q19b_Acdm_Resrc_CompOnline

Standard Attribute	Type	String
	Measurement	Nominal

Q19c_Acdm_Resrc_Tutoring

Standard Attribute	Type	String
	Measurement	Nominal

Q19d_Acdm_Resrc_OffCampCenter

Standard Attribute	Type	String
	Measurement	Nominal

Q19e_Acdm_Resrc_Other

Standard Attribute	Type	String
	Measurement	Nominal

Q19f_Acdm_Resrc_Other_Specify		
Standard Attribute	Type	String
	Measurement	Nominal

Q20a_Credits_1stYear		
Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 6 hours
	2	7-11 Hours
	3	12-16 Hours
	4	17-21 Hours
	5	Over 21 Hours

Q20b_Credits_2ndYear

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 6 hours
	2	7-11 Hours
	3	12-16 Hours
	4	17-21 Hours
	5	Over 21 Hours

Q20c_Credits_3rdYear

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 6 hours
	2	7-11 Hours
	3	12-16 Hours
	4	17-21 Hours
	5	Over 21 Hours

Q20d_Credits_4thYear

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 6 hours
	2	7-11 Hours
	3	12-16 Hours
	4	17-21 Hours
	5	Over 21 Hours

Q20e_Credits_5thYear

Standard Attributes	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Below 6 hours
	2	7-11 Hours
	3	12-16 Hours
	4	17-21 Hours
	5	Over 21 Hours

Q21_#AI_GradPrgm		
Standard Attributes	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Less than 10
	2	11-20
	3	21-30
	4	Over 30
	8	Don't know

Q22_Financial_Aid		
Standard Attributes	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes

Q23a_StdntLoan_Federal		
Standard Attributes	Type	String
	Measurement	Nominal

Q23b_StdntLoan_State		
Standard Attributes	Type	String
	Measurement	Nominal

Q23c_StdntLoan_Private		
Standard Attributes	Type	String
	Measurement	Nominal

Q23d_StdntLoan_AIGCService

Standard Attribute	Type	String
	Measuremer	Nominal

Q23e_StdntLoan_Other

Standard Attribute	Type	String
	Measuremer	Nominal

Q23f_StdntLoan_OtherSpecify

Standard Attribute	Type	String
	Measuremer	Nominal

Q24a_RA_TA

Standard Attribute	Type	Numeric
	Measuremer	Nominal

Q25_Scholarships

Standard Attribute	Type	Numeric
	Measuremer	Nominal

Q26_Fellowships

Standard Attribute	Type	Numeric
	Measurement	Nominal

Q27_WorkStudy

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q28_TribalAid_AIGC

Standard Attributes	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q29_TribalAid_AIGC_Specify

Standard Attribute	Type	String
	Measurement	Nominal

Q30_Employed_GradSchool

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q31a_#hours_work_1stYear

Standard Attributes	Type	Numeric
	Measurement	Nominal
Valid Values	1	Less than 10 Hrs.
	2	11-20 Hrs. weekly
	3	21-30 Hrs. weekly
	4	31-40 Hrs. weekly
	5	41 or more Hrs.
	9	N/A

Q31b_#hours_work_2ndYear

Standard Attributes	Type	Numeric
	Measurement	Scale
Labeled Values	1	Less than 10 Hrs.
	2	11-20 Hrs. weekly
	3	21-30 Hrs. weekly
	4	31-40 Hrs. weekly
	5	41 or more Hrs.
	9	N/A

Q31c_#hours_work_3rdYear

Standard Attributes	Type	Numeric
	Measurement	Scale
Labeled Values	1	Less than 10 Hrs.
	2	11-20 Hrs. weekly
	3	21-30 Hrs. weekly
	4	31-40 Hrs. weekly
	5	41 or more Hrs.
	9	N/A

Q31d_#hours_work_4thYear

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Less than 10 Hrs.
	2	11-20 Hrs. weekly
	3	21-30 Hrs. weekly
	4	31-40 Hrs. weekly
	5	41 or more Hrs.
	9	N/A

Q31e_#hours_work_5thYear

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Less than 10 Hrs.
	2	11-20 Hrs. weekly
	3	21-30 Hrs. weekly
	4	31-40 Hrs. weekly
	5	41 or more Hrs.
	9	N/A

Q32_TribalAffl

Standard Attribute	Type	String
	Measurement	Nominal

Q33_Raised

--	--	--

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	1	Reservation
	2	Off Reservation
	3	Urban area
	4	Multiple areas
	5	Other

Q33a_Raised_Other_Specify

Standard Attribute	Type	String
	Measurement	Nominal

Q34_Return_Home_Comm

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes
	8	Unsure

Q35_Tribal_Language

Standard Attribute	Type	String
	Measurement	Nominal

Q36a_Fluency_1stTL

	Val	
--	-----	--

Standard Attributes		Type	Numeric
		Measurement	Ordinal
Valid Values	1	Non fluent	
	2	Understand it but don't spe	
		3	Semi fluent
		4	Can carry on conversation
		5	Fluent in native tongue
		9	N/A

Q36b_Fluency_OtherL			
		Val	
Standard Attributes		Type	Numeric
		Measurement	Ordinal
Valid Values	1	Non fluent	
	2	Understand it but don't spe	
		3	Semi fluent
		4	Can carry on conversation
		5	Fluent in native tongue
		9	N/A

Q37_Tribal_Events		
Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q38_Tribal_Events_Specify		
Standard Attribute	Type	String
	Measurement	Nominal

Q39_Family_Support

Standard Attributes	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes
	9	N/A

Q40_Comm_Support

Standard Attribute	Type	Numeric
	Measurement	Ordinal
Valid Values	0	No
	1	Yes
	9	N/A

Q41_Care_Taking

Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q42_Care_Taking_Relationship

Standard Attribute	Type	String
	Measurement	Nominal
Valid Values	0	No
	1	Yes
	9	N/A

Q43_Loss_Grad_School

Standard Attribute	Type	Numeric
	Measurement	Nominal

Q44_Loss_Affect

Standard Attribute	Type	String
	Measurement	Nominal

Q45_Loss_Prevail

Standard Attribute	Type	String
	Measurement	Nominal

Q46_Cultural_Responsibilities

Standard Attribute	Type	String
	Measurement	Nominal

Q47_Balance_Responsibilities

Standard Attribute	Type	String
	Measurement	Nominal

Q48a_Physical_Endurance

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q48b_Physical_HardWork

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q48c_Physical_Diet

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q48d_Physical_Exercise

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q49a_Social_Family

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q49b_Social_Comm_People

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q49c_Social_Comm_Colleagues

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q49d_Social_Leadership

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q50a_Mental_Intl_Growth

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q50b_Mental_Critical_Thinking

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q50c_Mental_Decision_Making

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q50d_Mental_Knowledge

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q51a_Spiritual_Family

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q51b_Spiritual_Faith

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q51c_Spiritual_Belonging

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q51d_Spiritual_Activities

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q51e_Spiritual_BeliefSystem

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Low priority
	2	Below average priority
	3	Average priority
	4	Above average priority
	5	High priority

Q52a_Expr_Depression

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52b_Expr_Stress

Standard Attribute	Type	Numeric

	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52c_Expr_CampusAct

Standard Attribut	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52d_Expr_SocialLife

Standard Attribut	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52e_Expr_Causes

Standard Attribut	Type	Numeric

	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52f_Expr_Family_Duties

Standard Attribut	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52g_Expr_Tired

Standard Attribut	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52h_Expr_Sickness

Standard Attribut	Type	Numeric

	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52i_Expr_Diff_Living

Standard Attribute	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q52j_Expr_JobDuties

Standard Attribute	Type	Numeric
	Measuremen	Scale
Labeled Values	0	Not at all
	1	Rarely
	2	Occasionally
	3	Frequently
	4	Daily
	9	N/A

Q53a_Campus_Friendliness

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Poor
	2	Below average
	3	Average
	4	Above average
	5	Excellent
	9	No Answer

Q53b_Campus_Diversity

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Poor
	2	Below average
	3	Average
	4	Above average
	5	Excellent
	9	No Answer

Q53c_Campus_Tolerance

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Poor
	2	Below average
	3	Average
	4	Above average
	5	Excellent
	9	No Answer

Q53d_Campus_Safety

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Poor
	2	Below average
	3	Average
	4	Above average
	5	Excellent
	9	No Answer

Q53e_Campus_Caring

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Poor
	2	Below average
	3	Average
	4	Above average
	5	Excellent
	9	No Answer

Q54a_Academics_Courses

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54b_Academics_Value

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54c_Academics_Preparation

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54d_Academics_Creativity

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54e_Academics_Knowledge

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54f_Academics_Belonging

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q54g_Academics_GroupWork

Standard Attribute	Type	Numeric
	Measurement	Scale
Labeled Values	1	Very dissatisfied
	2	Dissatisfied
	3	Satisfied
	4	Very satisfied
	9	No Answer

Q55_Confidence

Standard Attribute	Type	Numeric

	Measurement	Scale
Labeled Values	1	Low
	2	Moderately Low
	3	Average
	4	Moderately High
	5	High

Q56_Dem_Age		
Standard Attribute	Type	Numeric
	Measurement	Scale

Q57_Dem_Gender		
Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	0	Female
	1	Male
	2	Other

Q57a_Dem_Gender_Specify		
Standard Attribute	Type	String
	Measurement	Nominal

Q58_Dem_Marital_Status		
Standard Attribute	Type	Numeric

	Measuremer	Nominal
Valid Values	1	Single
	2	Married
	3	Divorced
	4	Widowed
	5	Other

Q58a_Dem_Marital_Status_Specify

Standard Attribute	Type	String
	Measuremer	Nominal

Q59_Dem_Children

Standard Attribute	Type	Numeric
	Measuremer	Nominal
Valid Values	0	No
	1	Yes

Q60_Dem_#Children

Standard Attribute	Type	Numeric
	Measuremen	Nominal
Valid Values	1	One
	2	Two
	3	Three
	4	Four
	5	Five or More

Q61_Dem_Curr_Employed

Standard Attribute	Type	Numeric

	Measurement	Nominal
Valid Values	0	No
	1	Yes

Q62_CompEd		
Standard Attribute	Type	Numeric
	Measurement	Nominal
Valid Values	1	Associates
	2	Bachelors
	3	Masters
	4	Doctorate
	5	Professional
	6	Post Graduate
	7	Other

Appendix L

Scaled Variables

Dependent Variable

Student persistence.

10. If yes, how many times have you stopped and started again? Enter a number.
11. In total, how many terms (semesters or quarters) have you taken off? This will be the number of terms for each time you stopped added up for a total number.

Independent Variables

Academic success.

Family support.

49. In terms of social well being, please rate how high of a priority the following are to you:

Family

Communication with people

Community with colleagues

Leadership

- 51.a. In terms of spiritual well being, please rate how high of a priority the following are to you:

Family

Cultural identity.

3. Are you American Indian?

Financial support.

22. Do you receive financial aid for graduate school?

25. Have you received any scholarships to help finance your graduate education?
26. Have you received any fellowships to help finance your graduate education?
27. Have you participated in work study programs as part of your graduate education?
28. Have you received any tribal aid or American Indian Graduate Center Fellowships to help fund your graduate education?
30. Have you been employed during your graduate experience?
31. How many work hours a week did you work? Please choose an answer for each year you have been enrolled in graduate school.
- a. 1st Year
 - b. 2nd Year
 - c. 3rd Year
 - d. 4th Year
 - e. 5th Year

Academic skills.

8. Please list your cumulative grade point average in accordance with your degree level:
- a. Associates
 - b. Bachelors
 - c. Masters
 - d. Doctorate
 - e. Professional
 - f. Other
20. How many graduate credit hours (on average) do you enroll during each academic year:

- a. First year
- b. Second year
- c. Third year
- d. Fourth year
- e. Fifth year

48. In terms of physical well being, please rate how high of a priority the following are to you:

- b. Hard work

54. When reflecting on your school's academic, please rate yourself in the following areas:

- a. Challenging courses
- b. Values of education
- c. Preparation for work
- d. Creativity
- e. Knowledge of world
- f. Sense of belonging
- g. Ability to work in groups

Mentors.

15. Do you have a mentor to help advise you with graduate school?

Supportive faculty.

15. Do you have a mentor to help advise you with graduate school?

17. Please rate how helpful these student service providers are to you:

- a. Academic advisor

- b. Department chair
- e. Dean of Students
- h. Graduate Committee Chair
- i. Graduate Committee Members

American Indian programs.

17. Please rate how helpful these student service providers are to you:

- d. Financial Aid
- f. Student Support Services
- g. American Indian Programs
- j. Graduate School Enrollment Office

21. How many American Indians are enrolled in your graduate program?

- ☐ Less than 10
- ☐ 11-20
- ☐ 21-30
- ☐ Over 30
- ☐ Don't Know

53. When reflecting on your graduate career, please rate your campus climate:

- a. Friendliness of students
- b. Campus diversity
- c. Tolerance of diversity
- d. Campus safety
- e. Caring students

Self-perception.

7. Please rate the following factors in choosing your major:

- a. High paying job
- b. Intellectual curiosity
- c. Fulfilling career
- d. International opportunities
- e. Prestige
- f. Parent or community desires

48. In terms of physical well being, please rate how high of a priority the following are to you:

- a. Endurance
- b. Hard work
- c. Diet
- d. Exercise

49. In terms of social well being, please rate how high of a priority the following are to you:

- a. Family
- b. Communication with people
- c. Communication with colleagues
- d. Leadership

50. In terms of mental well being, please rate how high of a priority the following are to you:

- a. Intellectual growth
- b. Critical thinking

- c. Decision making
- d. Knowledge

51. In terms of spiritual well being, please rate how high of a priority the following are to you:

- a. Family
- b. Faith
- c. Sense of belonging
- d. Religious activities
- e. Belief system

52. When reflecting on your graduate career, please rate all of the following experiences that may apply to you:

- b. Stress
- c. Campus activities
- d. Social life
- e. Supporting causes
- f. Family duties
- g. Tired or lack of sleep
- h. Sickness or poor health
- i. Difficult living situation
- j. Job duties

53. When reflecting on your graduate career, please rate your campus climate:

- a. Friendliness of students
- b. Campus diversity

- c. Tolerance of diversity
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- e. Caring students

54. When reflecting on your school's academics, please rate yourself in the following areas:

- a. Challenging courses
- b. Values of education
- c. Preparation for work
- d. Creativity
- e. Knowledge of world
- f. Sense of belonging
- g. Ability to work in groups

55. How confident are you in completing the degree you are currently working on? On a scale of 1 to 5, one being very low confidence and five being very high confidence.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

Physical Well Being.

48. In terms of physical well being, please rate how high of a priority the following are to you:

- a. Endurance
- c. Diet
- d. Exercise

Social Well Being.

49. In terms of social well being, please rate how high of a priority the following are to you:

- b. Communication with people
- c. Communication with colleagues
- d. Leadership

Mental Well Being.

50. In terms of mental well being, please rate how high of a priority the following are to you:

- b. Critical thinking
- c. Decision making
- d. Knowledge

Spiritual Well Being.

51. In terms of spiritual well being, please rate how high of a priority the following are to you:

- b. Faith
- c. Sense of belonging
- d. Religious activities
- e. Belief system

Experience.

52. When reflecting on your graduate career, please rate all of the following experiences that may apply to you:

- a. Depression
- b. Stress
- c. Campus activities
- e. Supporting causes
- f. Family duties
- g. Tired or lack of sleep

- h. Sickness or poor health
- i. Difficult living situation
- j. Job duties

Campus.

53. When reflecting on your graduate career, please rate your campus climate:

- a. Friendliness of students
- b. Campus diversity
- c. Tolerance of diversity
- e. Caring students

Academics.

54. When reflecting on your school's academics, please rate yourself in the following areas:

- a. Challenging courses
- b. Values of education
- c. Preparation for work
- d. Creativity
- e. Knowledge of world
- f. Sense of belonging